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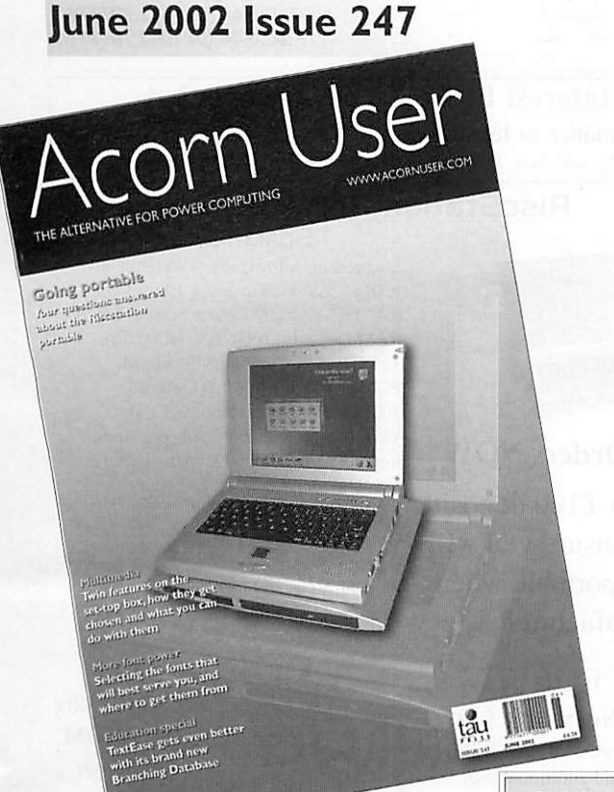
TextEase gets even better with its brand new Branching Database





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Editor's Comment

There are some people who believe that there is something seriously wrong with the RISC OS market and that this problem lies in the minds of the people who buy consumables.

Why do you buy them from PC World? Staples? Viking?

Why not buy them from the RISC OS dealers? The people that you want to pay for the next developments in the market? I don't know how often I've heard people complaining that there's no new software or there's no new hardware. Where's it going to come from? The developers are not asking you to pony up the dosh in thousands of pounds to hand over without a thought for the future. but what they would really appreciate is that, when you've run out of printer ink rather than reaching for the easiest solution why not actually try what may well turn out to be the cheaper solution. Buy it from a RISC OS dealer.

Don't forget that those that wield the power at these bigger organisations know that people choose them because it's easy. So they put a premium on prices. Try a RISC OS dealer, you might be surprised.

Rob Donaldson
Editor

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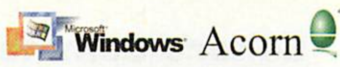
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Find out what you can get for very little

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Find out what others think about the most important RISC OS issues

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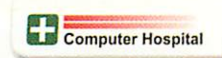
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ARM3 (25MHZ) & FPA10		£85.00	£99.87
FPA10 (25MHZ)		£45.00	£52.87
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A4x0/1 800K Floppy	#	£12.00	£14.10
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IDE 500 MB hard drive	I	£30.00	£35.25
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A3000 upgrades		exc VAT	inc VAT
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A3000 PSU's (referb)	#	£15.00	£17.62
A30X0 analogue / user card	#	£15.00	£17.62
A30X0 midi / user card	#	£20.00	£23.50
170MB IDE hard drive & i/f		£85.00	£99.87
340MB IDE hard drive & i/f		£95.00	£111.62
500MB IDE hard drive & i/f		£100.00	£117.50
810MB IDE hard drive & i/f		£105.00	£123.37
A3010 upgrades		exc VAT	inc VAT
Acorn Style Mouse		£17.01	£19.99
1-2 MB memory	#	£15.00	£17.62
1-4 MB memory		£45.00	£52.87
A3010 1.6M Floppy drive	R	£12.00	£14.10
A3010 1.6M Floppy drive		£20.00	£23.50
A3010 keyboards (green)	#	£20.00	£23.50
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A30X0 midi / user card	#	£20.00	£23.50
170MB IDE hard drive & i/f		£85.00	£99.87
340MB IDE hard drive & i/f		£95.00	£111.62
500MB IDE hard drive & i/f		£100.00	£117.50
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2-4 MB memory		£40.00	£47.00
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A3020 1.6M Floppy drive		£20.00	£23.50
A30X0 keyboards	#	£20.00	£23.50
A30X0 analogue / user card	#	£15.00	£17.62
A30X0 midi / user card	#	£20.00	£23.50
170MB IDE hard drive		£35.00	£41.12
340MB IDE hard drive		£45.00	£52.87
500MB IDE hard drive		£55.00	£64.62
A4000 upgrades		exc VAT	inc VAT
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A4000 1.6M Floppy drive	R	£12.00	£14.10
A4000 1.6M Floppy drive		£20.00	£23.50
A4000 keyboards	#	£49.00	£57.58
A4000 analogue / user card	#	£15.00	£17.62
A4000 midi / user card	#	£20.00	£23.50
IDE 200 MB hard drive	I	£20.00	£23.50
IDE 500 MB hard drive	I	£30.00	£35.25
A5000 upgrades		exc VAT	inc VAT
Acorn Style Mouse		£17.01	£19.99
2-4 MB memory		£45.00	£52.87
4-8 MB memory	•	£55.00	£64.62
FPA10 (25MHZ)		£45.00	£52.87
A5000 1.6M Floppy drive	R	£12.00	£14.10
A5000 1.6M Floppy drive		£20.00	£23.50
A5000 keyboards	#	£49.00	£57.58
IDE 200 MB hard drive	I	£20.00	£23.50
IDE 500 MB hard drive	I	£30.00	£35.25
A4 upgrades		exc VAT	inc VAT
Acorn Style Mouse		£17.01	£19.99
2-4 MB memory		£40.00	£47.00
A4 1.6M Floppy drive		£25.00	£29.37
170MB IDE hard drive		£35.00	£41.12
340MB IDE hard drive		£45.00	£52.87
500MB IDE hard drive		£55.00	£64.62
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Small items (under 2Kg).....no more than £6 + vat
One box of items totalling upto 25kg...£6.50 + vat
Computer systems..................................£13 + vat
All prices are correct going to press. E&OE
All goods are fully guaranteed but not supplied on approval.

ARMed to the teeth

ARM have announced several new developments. The first is a new version of their popular ARM7TDMI® processor core.

This new version can utilise leading-edge process technologies (the process used to burn the chip design onto a silicon wafer) which can significantly reduce die area and allow operation at lower voltages, which in turn lowers power consumption and extends battery life.

The new 0.13µm core offers a 50 percent reduction in die area and more than 75 percent reduction in power consumption over earlier 0.18µm implementations.

Furthermore, the new core can be powered down to 0.7V. At this voltage, the power consumption is reduced to an very low 18 µW/MHz, with a worst case frequency of close to 50 MHz. This capability will allow battery life to be extended even further than before.

"Since its inception, ARM has striven to achieve the best possible performance at the lowest possible power consumption and 10 years on, we still hold true to that philosophy — this new version of our most popular core is no exception," said Clive Watts, ARM7T product manager. "With its very small die area and significantly reduced power consumption, ASIC designers are now in an even more advantageous position when designing solutions for products that demand exceptionally long battery life."

The second development is the release of the first processor core based up on the ARMv6 instruction set architecture. The ARM11 microarchitecture forms the basis of a new range of ARM11 CPU products, and builds upon the success of the established ARM9ET and ARM10ET families of cores used in millions of mobile phones and PDAs worldwide.

"System developers demand continual innovation to enable the creation of world class digital products," said John Rayfield, director of R&D, ARM. "The ARM11 microarchitecture is the foundation of our next generation of CPU cores, and delivers new levels of performance and efficiency for leading-edge wireless and consumer devices."

The ARM11 microarchitecture is particularly suited to next-generation wireless and consumer devices, where high levels of performance and low-power consumption are required. These include 2.5G and 3G mobile phone handsets, PDAs and multimedia wireless devices, home consumer applications such as imaging and digital camera applications. The microarchitecture is also designed to meet the needs of home gateway and network infrastructure equipment including voice over IP and broadband modems.

The new ARM11 microarchitecture implements the ARMv6 instruction set architecture that includes the Thumb® extensions for code density, JazelleT technology for JavaT acceleration, ARM DSP extensions, and SIMD (Single Instruction Multiple Data) media processing extensions.

High performance is delivered using an 8-stage integer pipeline, static and dynamic branch prediction, and separate load-store and arithmetic pipelines to maximize instruction throughput. The ARM11 microarchitecture will deliver 350 to 500+ MHz worst case on 0.13u foundry processes, and over 1 GHz on next-generation 0.1µm processes.

Multimedia performance is accelerated through the enhanced integer pipeline, new SIMD media instructions, high-performance 64-bit memory system, and hardware support for unaligned data access. Real-time performance is enhanced by using vectored interrupts, and low-interrupt-latency operating modes which, together with ARMv6 architecture enhancements, reduce interrupt handling overhead by 70 percent.

The new ARM11 microarchitecture also provides considerably improved operating system performance by use of physically addressed caches, and new ARMv6 architecture instructions that accelerate context switching.

Its interesting to note that ARM are almost in competition with Intel with their XScale processor, based upon the original StrongARM core, developed jointly between ARM and the now defunct DEC.

Although almost exclusively concentrating on the portable device market, continued development of the ARM platform can only mean RISC OS has a long future ahead. Its just a shame RISC OS couldn't be in the position that Symbian is now.

RISCOS.org design competition

Can you design a T-shirt or a mousemat? This is a chance for all you budding artists to get creative, do your bit to raise money for charity and help publicise RISC OS. Winners will receive the finished product plus other prizes donated by companies.

The competition closes on August 1st then the winners will be voted by you on the RISCOS.org Web site. All profits from the sales will go to charity.

The T-shirt / Sweatshirt design should be a simple, clear, positive portrayal of RISC OS and include both the new cog logo, "RISC OS" and "RISCOS.org". It should be understandable at a distance and not demean anyone or anything. (No windows bashing!) The design for each side should be no larger than A3 size.

Alternatively if you want to design a mousemat. The design needs to fit a mat 24x21 cm and allow for the obligatory rounded corners. The only requirement is the design has to be a polite promotional RISC OS theme.

Send your designs to ian@riscos.org. Any artistic medium is acceptable but computer-generated designs should be created using RISC OS. Do not include anything metallic or sparkly in the design as they cannot be properly reproduced. Please try to keep the file size as small as possible but without compromising image quality. If you want to send your design in by post, you can contact me at ian@riscos.org for an address.

Would your company like to donate a prize in return for advertising on RISCOS.org? If so please send details of your donation to ian@riscos.org. Please see www.riscos.org/cgi-bin/artcl?a=tshirt for further details.

Desklib update

Work on the C/C++ programmers library "Desk" has been resumed from where Julian Smith left off in 1997. Desk, the successor to DeskLib, has been updated and is now at version number 3.12

Desk is a library for use from C/C++ programs which is designed to aid the development of fully-fledged Wimp applications.

It handles windows, menus, icons, error handling and a sophisticated event system. It also provides functions to provide many of the standard Wimp "constructs", such as sliders, increase / decrease "nudge" buttons and pop-up menus.

Desk is available from www.desk.iconbar.com. You can direct any enquires to general@desk.iconbar.com

New PC network protocol inspired by gossip

Scientists at Microsoft's Cambridge England research lab have developed a self-organizing peer-to-peer networking protocol called Pastry. The protocol uses a peer-to-peer addressing scheme inspired by the way that rumours and gossip spread through human communities. That is, gossip spreads from one person to another, rather than through a central dispatcher. The Pastry topology reduces the burden of passing information around, because one node does not have to send its data to all the nodes requesting it.

The members of a Pastry network only connect to a few nodes in the entire system. Typically, each computer links to machines that have addresses close to theirs, as well as to at least one in the other numerical domains of the addressing system. Experiments have shown that Pastry can reliably send information to network members, even though they may regularly join and leave the system.

Each node in the Pastry network has a unique, uniform random identifier (nodeld). When presented with a message and a numeric key, a Pastry node efficiently routes the message to a live node with a nodeld that is numerically closest to the key. Pastry nodes track their immediate neighbors and form ad hoc clusters called a leaf sets. Leaf sets track member arrivals, failures and recoveries. Pastry takes into account proximity in the underlying Internet and seeks to minimize the distance messages travel.

Desktop PCs are very powerful computers that are used for mundane tasks like word processing or e-mail. They rely on distant networks of servers to store and deliver information. Pastry is a technology that will enable better use of computers that are on the edge of the network. It also has the capability to make communications more robust and network efficient. Some of the challenges of Pastry are scalability and reliability. It will be interesting to see what business applications are developed with Pastry and what happens to these networks when hackers start tampering with the protocol.

More on pastry:
http://research.microsoft.com/~antr/pastry/

ARM Club bow out of Main RISC OS Show

The ARM club have announced they will not be organising their annual South East show. Following what most deemed a successful show in Bracknell last year, the ARM Club no longer have the funds or volunteers available to run such a large event.

The ARM Club and regional user groups stepped into the role of organising a south-east show after the demise of the annual Acorn World, which was heavily subsidised by Acorn themselves.

It remains to be seen whether one of the regional groups or another organisation now takes over to continue providing a major show for the south east of England.

...but Midlands Show is on

The Midlands RISCOS 2002 Show has been confirmed. The date is Saturday 30th November at the National Motorcycle Museum near Birmingham. The event is being held in the Manxman Suite this year instead of the usual Premier Suite. Castle, R-Comp and Archive Publications have already booked.

Enquiries to **ralph@armclub.org.uk** or **midlands@armclub.org.uk**

The ARM Club

Just whisper it

Two young lads aged 18 and 21 have created a new software package that primises to be a world beater un on line face-fo-face chat.

CybaHous has created the first ever video-conferencing chat room called Eye-D-Me using conventional phone lines for up to 20 people anywhere in the world. Until now linking people with sound and vision has required thousands of pounds worth of hardware and special ISDN phone lines or networks.

But that is all about to change thanks to two bright young lads from Huddersfield who have been dubbed as the 'binary brothers'.

The software has been developed by the Hardcastle brothers Ian aged 21 and Craig aged just 18 who have worked night and day on the software for the past eighteen months.

Company CEO Stewart McLean who recently returned from the 3G Summit in Cannes stated "This sounds like the stuff science fiction movies are made of, but it really is true with this software you can now see and talk to more than one person anywhere in the World without the use of expensive ISDN lines and video conferencing equipment"

In fact a standard PC user requires no more than the software costing £24.99 a web cam and a micro phone

Monaco Telecom has asked the company to trial the software on their 3G network for SFR, Vivendi and Vodaphone. Telco's such as Orange are currently looking for content and it is clear that Eye-D-Me is an excellent option for PC, PDA and mobile phone users.

A feature of the software is that once you have downloaded the program you will instantly create a safe environment where other PC users can only appear on your PC by invitation only.

Windfall snippet

John Kortink, developer of the excellent ViewFinder card that provides hugely improved graphics capabilities for Risc PCs and Odyssey machines, is currently developing support for a third AGP video card (after the initial ATI XPert 98, followed by the ATI XPert 2000 Pro last January), being the ATI Radeon range of cards. This further improvement will be upgradable on existing cards.

Web mailing list

There is a mailing list for discussion of WebJames (an HTTP server), PHP (a scripting language) and any related subjects.

To subscribe, visit:
www.smartgroups.com/groups/webjames-php
or send a blank email to:
webjames-php-subscribe@smartgroups.com

Latest Club News

M25EROUG's June meeting on the 18th will be looking at digital cameras and photo editing software. Anyone attending are asked to bring their own cameras along so that they can look at, 'play' with and review them.

M25EROUG meet at Harold Court School, Church Road, Harold Wood, RM3 0SH every 3rd Tuesday, except August and December, at 7.0 p.m. for 7.30 p.m.

With plenty of off road free parking the meeting is only 5 minutes from J28 if the M25, or 10 minute walk from Harold Wood Station. Tea, coffee and "bickies" available. No charge for attendance, small contribution for refeshments appreciated.

Bottisham Acorn User Group (BAUG) — The oldest established Acorn Group, now into their 21st year have two June meetings :

Tuesday 11th June 2002 Simple Networking RPC to PC Tuesday 25th June 2002 Using PhotoDesk: touching up photos.

RISCOS.be, the Belgium RISC OS user group also have two June meetings — Friday 14th June and 28th June.

On 22nd June RISC OS.be *will also* be attending the Dutch RISCOS Expo 2002. More details on this exhibition can be found at **www.bigbenclub.nl**

The Blackpool Computer Club's monthly meet falls on June 7th this month and is being held at the Victoria Hotel in Cleveleys.

All user group contact details can be found on the AAUG Web site: **www.aaug.net**

Big Ben Show

The Big Ben Club is the nationwide Dutch Acorn User Group and they are holding their annual RISC OS show: the RISCOS Expo 2002

The show will be held on Saturday, June 22th, 2002 from 10.00 a.m. to 5.00 p.m at Expohall, Hotel Mercure, Buizerdlaan 10, Nieuwegein (near the city of Utrecht)

The location boasts excellent facilities, a restaurant, and free parking. Admission is free to members, EUR7 to non-members.

The Show offers exhibitions/promotions by various companies, including Dutch, German and British Acorn dealers, demonstrations by club members, and so on. A theatre is also provided for demonstrations.

RISCOS Ltd, Cerilica and Microdigital are all down as exhibitors so we await with interest reports on any Omega appearances!

Participation is free of charge for dealers and publishers from the UK to minimise the costs of travelling to Holland.

www.bigbenclub.nl
www.bigbenclub.org

New editor

Tau Press are delighted to welcome Rob Donaldson as the new Editor of Acorn User. Commenting on the loss of the previous editor, Steve Turnbull, MD of Tau Press said 'We are sad to lose Michael whose hard work over the past few months has helped to improve Acorn User. He has moved onto bigger and better things, we wish him well!'

We look forward to Rob's contribution to further improving Acorn User and providing informative and satisfying reading for our growing readership!

Virtually on CD

Version 1.10 of VirtualA5000 — the RISC OS emulator for PCs from VirtualAcorn can now read and write Packet CDs, read and write to DOS floppies and also LANMan98 network drives.

Packet CD (also known as UDF) allows CD writers to copy files using drag and drop file transfers. Files can be renamed, deleted, or have their filetypes changed "on the fly" on a writable CD.

This means that users could for example backup their VirtualA5000 hard disc directory to a CD by just dragging files onto the CDROM "drive".

Once a CD has been finalised using Windows it can also be read on a "real" RISC OS machine, and provided applications and files have been archived then all the filetypes will be preserved. Depending on the particular CD software provided on the PC it is also *possible to* write data to a CD on VirtualAcorn, then read the CD on a "real" RISC OS machine and then add further data to the CD using VirtualA5000.

So far CD VirtualAcorn have only tested CeQuadrat PacketCD(tm) and Roxio DirectCD(tm). Full information on setting up a CD Writer is now on the VirtualAcorn Technical Support pages.

The networking support allows establishments that have networks of "real" RISC OS machines to also use PCs with VirtualA5000 installed to access the same data over the network.

Tips on how to setup these additional features can be found on the VirtualAcorn Web site.

www.virtualacorn.co.uk

You can be all thumbs too

R-Comp have announced the release of WebThumbs 1.11 as a free update to existing users. WebThumbs is supplied as part of their EasyClip2+ software.

It allows the user to produce a variety of different types of web-gallery for photos and other images. It can also be used to create cross-platform CDs of images.

The program has received a number of enhancements and updates. Firstly, it should now work on all machines RO 3.1 and higher, provided they have all the relevant toolbox modules installed.

Secondly, it can now handle far more input filetypes, allowing for generation of indexes of all kinds of clipart and photograph types.

The software can also output its results in a broader range of filetypes, so that you can tune this to the type of images being catalogued. This makes it ideal for producing CDs of images for cross-platform consumption.

Various other tweaks to WebThumbs features and the HTML it produces have also taken place, expanding its functionality quite considerably.

So get your upgrade if you haven't yet, or perhaps even get EasyClip2+ if it looks like something you'd like.

R-Comp
22 Robert Moffat, High Legh,
Knutsford, Cheshire WA16 6PS
Tel: (+44) 01925 755043
Fax: (+44) 01925 757377
Web: **www.rcomp.co.uk**

Going that much faster (for less)

There have been a number of ADSL developments this month for RISC OS users.

Both R-Comp Interactive and CJE Micros are now offering RISC OS users an "ADSL in a box" solution to get high speed, broadband internet access.

This includes all the hardware required to hook your RISC OS machine to an ADSL-enabled phone line. Note that you will also require internet software which may or may not be included in the package.

It is expect that other dealers will follow suite with their own solutions and "all in one" packages giving RISC OS users a range of performance/ price solutions.

For those who are unfamiliar with the technology, ADSL offers high speed internet access over your existing telephone line.

- Download speed up to 512Kb/Sec
- Always on — no lenghty connection delays
- No Internet call charges
- You can make voice calls whilst using the Internet
- Uses your regular BT phone line

Once you have your ADSL hardware installed, you will need to select an ISP to use for your connection — there are an ever increasing number and both suppliers offer suggestions and example pricing.

AAUGOnline, the Free RISC OS ISP, are also looking into the possibility of expanding their RISC OS Internet services to include ADSL at a reasonable price.

www.cjemicros.co.uk/adsl
www.rcomp.co.uk
www.aaugonline.net

Get that location

Steve Fryatt has recently upgraded his file-find utility for RISC OS called Locate, based on the tools available on other platforms. It can search for files based on any file attribute and file contents. Locate will work on any version of RISC OS from 3.11 to 4.29.

The main new features in 0.65 are:

- Locate can now act as a Find plugin for the Filer under RISC OS Select, meaning that it can be started from a Filer menu and search in the selected objects.
- Multiple paths can be searched in one operation.
- It is possible to give history entries meaningful names (not a perfect solution, but it's a step in the right direction).

E-mail: **steve@stevefryatt.org.uk**
Web: **www.stevefryatt.org.uk**

STD NET100 cards shipped

Stuart Tyrrell Developments has announced the arrival of the NET100 cards. The NET100 is a 10/100BaseT full/half duplex network card available for RiscPC and A7000 series machines, commissioned by a partnership of Stuart Tyrrell Developments, RComp and CTA/Riscstation.

The NIC interface, designed and manufactured by Simtec on behalf of the partners offers a highly integrated solution, drawing on Simtec's expertise of high-speed multi-layer PCB design, preferred status with device suppliers and continued commitment to the RISC OS market.

The interface is fully FLASH upgradable and allows users to add almost 500Kb of their own modules to the FLASH memory if they wish. An asymmetrical 16K packet buffer reduces receive overruns and can cut interrupt overheads by a factor of three times when compared to cards with smaller buffers, leading to favourable results in independent speed tests.

The four-layer board, automated SMT assembly and custom laser-cut metalwork are indications of the high build quality demanded by Stuart Tyrrell Developments and partners, and is typical of Simtec's products for the RISC OS and embedded markets.

NET100 is supplied complete with drivers and includes a BOOTP client. It costs £89 inc delivery and VAT (£69 exc) and is available, along with a range of network cabling, hubs, switches and software from ourselves and other partners.

Contact: Stuart Tyrrell Developments
PO Box 183, OLDHAM, OL2 8FB
Tel: 0845 458 8803

Scouting for mail

Image Software is proud to announce the release of MailScout — an antispam and on-line mail interrogation software for RISC OS.

Junk e-mail is becoming more and more of a problem. Typically you might download between thirty and forty junk e-mails each day. These are often large files with bulky HTML attachments. You can waste huge amounts of time and money downloading this unsolicited, and unwanted e-mail. Anyone whose e-mail address is on a Web page or newsgroup posting will be able to sympathise with this ever growing problem.

You might be dealing with your junk mail using the !Junkmail software but Mailscout works in a completely different way. MailScout allows you to scan your e-mail boxes and remove unwanted mail before downloading.

User defined filters allow you to automatically flag 'suspect' e-mails for deletion based on values in the mail's "FROM", "TO" and "SUBJECT" headers.

Using MailScout is simple — the application probes your mail server using the IMAP or POP protocols and produces a summary of e-mails currently in your mailbox. E-mails with attributes matching those in any of the filters are automatically marked as pending deletion.

Simply review these; unflag any which you would still like to download; flag any missed out by the filters; and tell MailScout to purge the unwanted mails from your mailbox. You can then run your e-mail software to download your wanted mail.

Adding senders' e-mail addresses to the filtering system is as easy as clicking on their address in the summary window. Adding other values to the filters is as easy as editing the filter text files (in your favourite text editor).

MailScout costs £25 (fully inclusive of VAT and UK P&P).

Image Software (UK)
48 Hinchliffe Road, Poole,
Dorset BH15 4ED
Tel. 01202 269720
Fax. 01202 685072
E-mail: **sales@imagesoft.co.uk**
Web: **www.imagesoft.co.uk**

What's a GNU when it's PG?

Stefan Bellon has released GnuPG which is a complete and free replacement for PGP and, because it does not use the patented IDEA algorithm, it can be used without any restrictions — the original version was covered by various legalities which could get very messy.

GnuPG itself is a command-line tool without any graphical stuff. It is the real crypto engine which can be used directly from a command prompt, from obey scripts or by other programs. Therefore it can be considered as a backend for other applications. It features:

- Full replacement of PGP.
- Does not use any patented algorithms.
- GPLed, written from scratch.
- Full OpenPGP implementation.
- Better functionality than PGP and some security enhancements over PGP 2.
- Decrypts and verifies PGP 5, 6 and 7 messages.
- Supports ElGamal (signature and encryption), DSA, RSA, AES, 3DES, Blowfish, Twofish, CAST5, MD5, SHA-1, RIPE-MD-160 and TIGER. (and optionally — not GNU anymore — you can use IDEA as well)
- Supports key and signature expiration dates.
- Integrated support for HKP keyservers (wwwkeys.pgp.net).

Messenger Pro 2.50 already supports GnuPG in a beta stage, later versions have GnuPG support in *release quality*. Pluto supports GnuPG since version 2.04 as well.

You can download it from www.sbellon.de from one of six different archivedepending on your exact requirements, see the site for details.

Squishy cell phones add a buzz to calls

Researchers at the MIT Media Lab are working on rubber cell phones that can transmit vibrations.

The idea is to allow people to add emphasis and emotion to their calls by squeezing their phones. The phones record the strength of their users' squeeze and transmit that as a vibration to the recipient.

When users grip the phone they depress tiny speakers and pressure sensors that vibrate against the skin. According to researcher Angela Chang, "vibralanguages" could one day prove almost as popular as text messaging, because there are times when people want to communicate something without bystanders realizing.

Squeeze you later!

Robot designed to attack ATMs

Scottish scientists have created a robot "vandal" to test the strength of cash machines. NCR asked the University of Abertay in Dundee to come up with a device to gauge the toughness of its automated teller machines (ATMs).

NCR, which has a plant in Dundee, makes about 40,000 machines every year for use in 130 countries. The Abertay team produced a piston-like arm that can strike the machines with varying force.

Stockwatch

ARM Holdings PLC: 218p

Pace Micro Technologies PLC: 92p

Japanese scientist designs "human" speaking robot

A Japanese inventor is developing a lung, windpipe, vocal cords, and throat, so his robot can speak like a human. The artificial voice system forces air through the cords and into a passageway producing natural vowel sounds. Designer Hideyuki Sawada says the robo-voice listens to itself talking and then corrects its movements so it can produce the preferred sound.

But there is a limit to the sounds it can make because it hasn't got a tongue yet. We look forward to the day when we can listen to the robot having a conversation with one of Jonathan Duddington's Risc PCs.

Reconcile your image

Not content with Mailscout, Image Software has also brought out the next version of Money Manager 2001 (Personal Edition), in the form of Money Manager 2002. Yeh.

This version of the premier personal accounts package for RISC OS now boasts QIF import capabilities, providing quick and easy account setup and reconciliation of account transactions downloaded from your banks Web site.

The Money Manager accounts package is renowned for its ease of use. This comes from a tried and tested design with 'simplicity without compromise of features' as a core requirement.

Some of the features of Money Manager include :

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- Recognition of all international currencies with multi-currency support.
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- Account summary display.
- Unlimited undo/redo facility.
- Application State Preservation (ASP) — restores the application to the same state on loading as when you last quit.
- QIF file import (for setting up news accounts using transactions downloaded from your banks website).
- QIF file reconciliation (for reconciling transactions downloaded from your banks website).
- Automatic pop-up calculator

And all this for only £29.99, fully inclusive of VAT and UK P&P. To place an order for Money Manager 2002 contact 01202 269720 or drop a line to sales@imagesoft.co.uk.

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Neil Spellings
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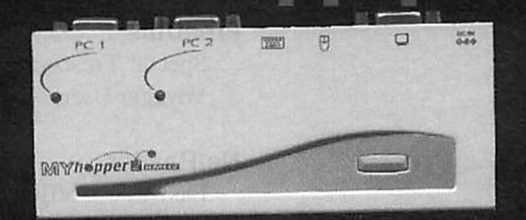
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Keyboard controlled switch pack inc PS2MouseMini only £100 inc when purchased with PC.

PS2MouseMini allows the use of PC-style PS/2 mice with all RISC OS machines which do not already have a PS/2 port (ie all but A7000/RiscStation) Use PC mice (or switches) Only £18.95

A7000, RiscStation and Omega machines may also be switched and do not require a PS2MouseMini interface

ParaFS



PARAFS is a parallel port networking system for machines fitted with a bi-directional parallel port (A30x0 / A4000 / A5000 / A4 / A7000 / RiscStation / Mico / Omega / RiscPC)

It is implemented as a filing system and so provides transparent file sharing across machines without the need for cumbersome and slow transfer programs. Files and directories which are stored on the remote machine appear as if they are local

ParaFS typically achieves access speeds of well above 100K/sec, making it an ideal solution for most file-sharing applications.

£29.95 inc easy-to-find red transfer cable. £22.95 software only.

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A quality, branded 3-button mouse for machines fitted with a standard Acorn (9 pin connector) mouse port. Adapted for Acorn machines using our PS2MouseMini technology.
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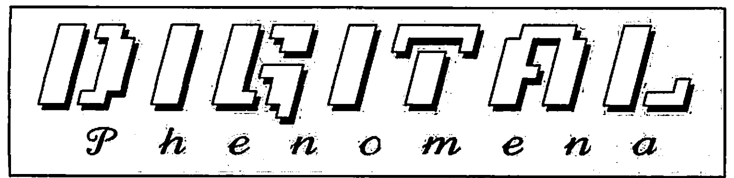
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...a major new RISC OS application

!Sorté - a multimedia database authoring system
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(check web page for development news)

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Classic Games Compilation **£10.00**

A compilation of classic games including:
SuperSnake - an addictive version of the old favourite arcade game, featuring configurable keys, one or two player games, computer controlled snake and over 20 increasingly difficult levels.
Runeseeker - An arcade adventure. Can you explore the maze to locate all the hidden coins and escape with your lives intact? Features 12 fiendishly difficult levels, teleports, locked doors, bombs and even an unfriendly yeti intent on hunting you down!
Shanghai - A desktop version of the classic Chinese strategy game. Can you remove all the matching tiles in the quickest time? Featuring different tile sets, board styles and difficulty levels.
BlackJack - A desktop version of the popular casino card game, featuring full casino rules.
Nightmare Park - A bonus RISC OS version of the original BBC B classic featuring the original 'mode 7' graphics but now RISC OS 4 and StrongArm compatible.

VZap **£10.00**

The original Acorn virus scanner.

- Free support as and when new viruses are discovered
- Easy use. Start scan with only two mouse clicks.
- Network compatible for schools and colleges.

These and **more** shareware applications and utilities are available to download for free evaluation from:
www.digitalphenomena.co.uk/software.html

Web design and general Acorn/RISC OS consultancy and help available. Please email for details.

Always on Arcade

We've finally done it! Arcade BBS, still running after all these years, is now continuously online with Demon Internet Express Solo ADSL. After a couple of years of part-time evening and weekend "SurfTime" connection on BT Home Highway, ADSL has at last become a viable, affordable and available alternative, and our phone bill will actually be reduced. So now Arcade BBS is always accessible by telnet, and the Filebase via Web pages and FTP, as well as our original modem dial-in number 020 8654 2212.

Co-sysop David Coleman and I have had to say goodbye to our trusty customised version of KA9Q, the original and complete freeware Internet software package that gave so many other Acorn users their first taste of the Internet.

For ten years Arcade BBS used KA9Q, known better in Acorn circles as !TCPIP, for our SMTP e-mail and NNTP Usenet news gateways. With various tweaks provided by the Acorn KA9Q maintaining team, and our sometime Arcade regular, Richard Sargeant, !TCPIP served us well until the Millennium, when its news fetching system fell over.

In January 2000 we moved news posting and fetching over to the excellent !NewsHound by Joseph Heenan, and carried on with !TCPIP for SMTP e-mail. The new Demon Express Solo ADSL service does not provide SMTP mail reception, so !TCPIP has had to go. !POPstar, another Heenan-maintained product originally written by Tony Houghton, has taken over for e-mail sending and receiving.

Demon's POP3 mail service allows both fetching mail by specific address and by hostname. As the Demon e-mail system allows an unlimited number of addresses, we have set up POPstar to fetch all users' e-mail into one big file.

Our gateway software sorts the file into individual e-mails, checking for and junking spam where possible, and then imports them into each e-mail user's BBS mailbox. POPstar is as easily scheduled as !TCPIP, and is now set to send and receive e-mail at regular intervals throughout the day, rather than just a call in the afternoon and again in the early morning.

The Demon Solo service is distributed by an ADSL modem/router running NAT (Network Address Translation) with port forwarding to allow requests for Telnet, http and ftp protocols to be steered to the right ports of the Arcade BBS RISC PC. The router owns our fixed IP address allocated by Demon, and all external packets appear to come from or are directed to this address.

Its built-in firewall denies access to all incoming packets except to these specific service ports. This maintains reasonable security by hiding all the other machines on the local network, while the inherent security of RISC OS protects the ports that are open.

Beside the Arcade BBS machine, our local Arcade LAN consists of another Risc PC and a Windows PC, both of which are able to use the Internet connection. By running Acorn Access, !smbserver by David Buxton, and !LanMan98 by Warm Silence, all the Risc PCs and the Windows PC can see and access each other's hard discs.

When we started Arcade BBS in 1990, our aspiration was to be online all the time "one day". That time is here, so if you'd like to remind yourself of the early exciting days of comms, but without one eye on the clock, give Arcade BBS another call. Your old username and password are probably still valid.

Arcade BBS on ADSL
Telnet to: arcade.demon.co.uk
Web: http://arcade.demon.co.uk
Web: http://arcade-bbs.net

Always on, always there, almost always...

Virtual Access

To overcome the problem of a public or standard LAN IP-addressed Acorn machine apparently disappearing from view when using Acorn Access for disc-sharing, Martin Longley reports a simple solution. Later ANT and I-cubed/DesignIt Network cards can be configured to have two ethernet interfaces, a feature originally intended for the 486 second processor PC card. Martin's technique sets up the second interface to occupy a place in the Acorn Access system's address space, so the machine magically re-appears on the other machines. First step is to execute "*configure ehvirtual on" and re-boot the machine. Then create an Obey file containing two lines:

```
ifconfig eh1 1.100.100.100 netmask 255.0.0.0
ifconfig eh1 up
```

and double-click the file. To have this run on every boot, name the file something like ~zstartaccess, and drag it into !Boot.Choices.Boot.Tasks

In brief

FreeUK Broadband

FreeUK has been one of the less conspicuous ISPs offering an excellent free dial-up Internet service, obtaining their revenue from their 0845 access number usage. Now FreeUK are offering "wires-only" broadband ADSL connections for just £22.99 inc VAT per month. This is a significantly lower charge than ADSL offerings from Pipex (£23.44) or Freeserve (£29.99).

FreeUK Broadband runs alongside their existing dial-up service to provide 512Kbps downstream and 256Kbps upstream, with e-mail, news and 50Mb webspace, and 24 hour local rate support. Usefully, FreeUK provide Webmail access to e-mail which means you can read and reply to your e-mail without dialling the UK when you're abroad. You can even dial in to their French partner ISP FreeSurf using your UK username and password.

FreeUK Broadband
www.freeuk.co.uk/broadband.html

War Driving

As soon as any new technology is introduced, there will be people ready to exploit its deficiencies. The sudden popularity of the "Wireless Ethernet" or WiFi LAN networking standard also known as 802.11, has caused a new phrase to enter the language - War Driving. WiFi has become very popular with both home Internet users and large corporations as an easy way to extend local private networks with this 2.4Ghz 11Mbps radio-linked networking standard.

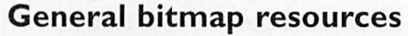
The problem is that the most popular standard 802.11b implements very poor security. It is quite possible to drive, walk by or simply be in an area covered by an unsuspecting owner's wireless network, and with the help of a laptop, wireless LAN card and a GPS receiver to log the location, share Internet access or connect to other computers on that LAN. This new "sport" has been coined "War Driving" by Pete Shipley. To find out more about the legal, ethical and security issues take a sniff at www.wardriving.com

David Dade
comms@acornuser.com

Getting it webbed

This time, the Graphics column is taking a look at clip-art on the Web. Having powerful painting packages like Photodesk and Studio 24 Pro at your fingertips is all very well, but creating impressive artwork from scratch takes time and not all of us are as talented in the area of artistic creation as we'd like to be. So if we just need a handy graphic for a particular purpose, it often makes sense to have a hunt on the Web to see if there's anything that's freely available that would fit the bill.

The question is, where to start! The Web is vast, and there's a huge number of sites offering a range of clip-art. Some of it is completely free; more often, there's a limited selection of free material and a much greater range of material that you can only get by paying a membership fee or similar. An initial hunt for clip-art sites on a search engine such as Google (www.google.com) will give you a launching point to finding other things; but here's a few links to get you started.



General bitmap resources

Good starting-points for clip-art hunts would be sites like the following two: www.clip-art.com and www.clipart.com

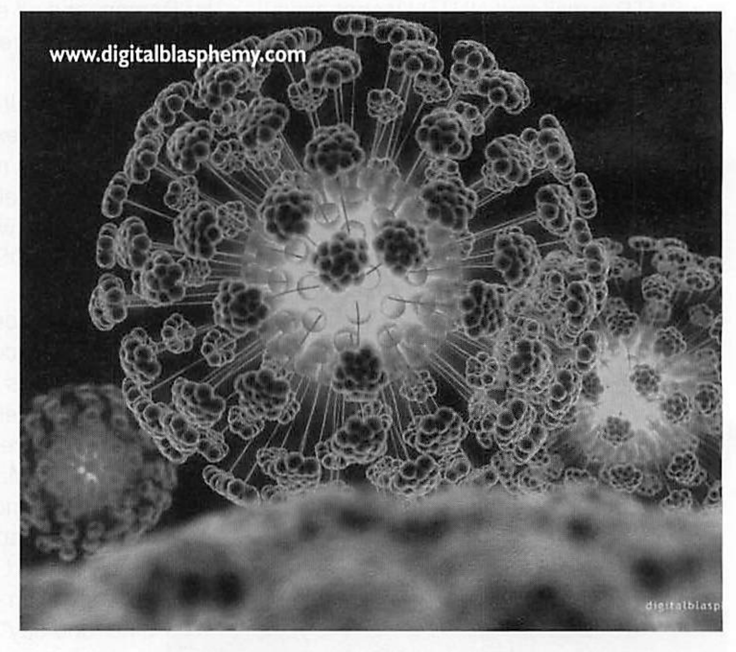
These are similar sites, but are not identical. They act as portals to other sites with huge collections of clip-art of all kinds, from simple images to animations, and Web buttons to tiled backgrounds. As another starting-point, you might try is www.graphicsring.com This, as its name suggests, is a Web ring which comprises over five hundred graphics-related sites.

Following the links provided by any of these sites is bound to lead you to something of interest, though it's worth pointing out that with free items you often get what you pay for. Still, you can sometimes find some real gems.

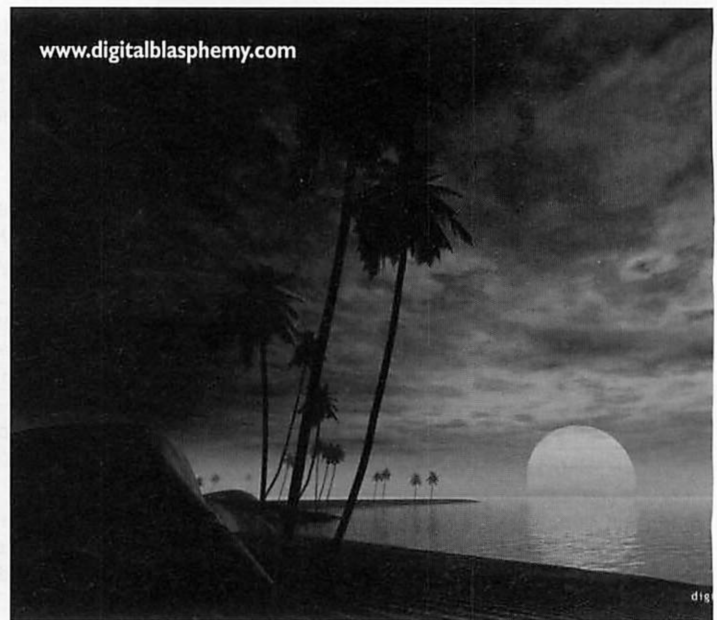
Pictorial art

If you're looking for photographic resources, or









computer-generated artwork, there are various places to try, and a number of good computer artists who produce impressive work and offer some of it for free.

A few good sites are as follows:

www.macdesktops.com
As its name suggests, Mac Desktops has an Apple bias. Nevertheless, the large majority of its images have nothing to do with computers, and there's a range of sometimes excellent photos in many categories which you can search quite easily. The images are intended mainly for use as desktop backdrops, but they're all offered in a range of resolutions, usually up to 16001200 and sometimes higher, and so may be suitable for printing, too.

www.digitalblasphemy.com
Digital Blasphemy is one of the most well-known sites for computer-rendered artwork, and contains a huge array of often breathtaking fantasy and space-related compositions by Ryan Bliss. The images are now mostly commercial, and can be bought by subscription or on CD, but a selection of around thirty images that can be downloaded for free is maintained, and the free images change from time to time.



www.artofgregmartin.com/vault.html
More spectacular original artwork is available from Greg Martin's site. The choice is currently much more limited than on Digital Blasphemy, but the images are extremely good. Virtually all of them have a space theme, with an emphasis on realistic renditions of natural phenomena such as nebulae, rather than sci-fi elements like space ships (though there's at least one good space ship picture).

Background tiles

The above kind of desktop artwork is often described by link sites as 'backgrounds', but the term also applies to the small tiles you might use behind the text on a Web page. If the latter is the sort of image you're after, then there's lots of places to go. One source of seamless background tile is **www.backgroundcity.com** which offers all kinds of free tiles, arranged in themes and groups.

Animations

If it's little animations that you're after for your Web pages, then take a look at **www.animation factory.com** The site contains over 3000 animated GIFs in many categories, together with specialised buttons and other items for Web pages. Also available is a wide range of excellent animated flags.



Web page elements

If you're after other elements for your Web page (backgrounds, bars, buttons, icons, dividers and so on) try Animation Factory's associate site, Media Builder **www.mediabuilder.com** There are lots of bits and pieces to choose from here, though as usual the usefulness of the material is variable.

GREG MARTIN SHATTERED WWW.ARTOFGREGMARTIN.COM
www.artofgregmartin.com/vault.html



DTP resources and others

Many clip-art sites refer to free fonts, but of course they're for the PC and Mac and aren't usable under RISC OS unless you have a converter. However, there's one major resource on the Web for free RISC OS fonts; namely Harry Decker's Font Emporium at **www.fonts.iconbar.com**

This amazing collection comprises nearly four and a half thousand free outline fonts! They're virtually all 'fancy' display fonts, of course, and you can't expect commercial quality, but you'll be hard pressed not to find something to take your fancy.

As for vector clip-art for DTP use, though, that's much harder to come by. Most of what you'll find on the Web is in WMF (Windows MetaFile) format, for which RISC OS conversion utilities exist (ImageFS can turn them into Draw files on the fly, for example). However, very few sites have anything useful on them. You might try the following page **www.clip-art.ru** The site is in Russian, but there are previews of all the downloadable images.

And if you're an educational user, you might be able to find some useful resources. The best place to look initially would be the ROSES site for RISC OS-specific material **http://roses.jellybaby.net/** Draw-format clip-art is available in addition to many other kinds of resource.

Conclusion

So, I hope that the above has given you a few interesting pointers for obtaining free and useful graphical items.

Geoffrey Dean
graphics"acornuser.com



Latest Prices

June 2002

Logitech Mice

Logitech Optical Mice	exc VAT	inc VAT
Wheel Mouse Optical PS2/USB	27.00	31.72
Wheel Mouse Optical with Acorn Adapter	39.00	45.82
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MouseMan Wheel Optical with Acorn Adapter	54.00	63.45
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Cordless Optical Mouse


Cordless MouseMan


Pilot Wheel Mouse Optical

Logitech Corded Mice	exc VAT	inc VAT
Mini Wheel Mouse PS2/USB	17.00	19.97
Mini Wheel Mouse with Acorn Adapter	29.00	34.07
Pilot Wheel Mouse PS2/USB	17.00	19.97
Pilot Wheel Mouse with Acorn Adaptor	29.00	34.07

Logitech Cordless Mice	exc VAT	inc VAT
Cordless Wheel Mouse PS2/USB	28.00	32.90
Cordless Wheel Mouse with Acorn Adaptor	40.00	47.00
Cordless MouseMan PS2/USB	46.00	54.05
Cordless MouseMan with Acorn Adaptor	58.00	68.15
Cordless TrackMan PS2/USB	39.00	45.82
Cordless TrackMan with Acorn Adaptor	51.00	59.92
Cordless Optical Mouse PS2/USB ***NEW***	38.00	44.65
Cordless Optical Mouse with Acorn Adaptor ***NEW***	50.00	58.75

Digital Cameras

Epson Digital Cameras	exc VAT	inc VAT
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PhotoPC 3100Z (4.8 MegaPixel) - CompactFlash	467.23	549.00


GV10


QV2900


QV3500


QV4000

Casio Digital Cameras	exc VAT	inc VAT
GV10, 1.3 mega pixel, CompactFlash. *Watertight design*	237.38	278.92
QV2900, 2.11 mega pixel, CompactFlash, 8x optical zoom	351.25	412.72
QV3500, 3.34 mega pixel, CompactFlash, 3x optical zoom	316.25	371.59
QV4000, 4.13 mega pixel, CompactFlash, 3x optical zoom	450.00	528.75
Casio Camera Power Adaptor	29.00	34.07

Digital Camera Accessories

Digital Camera Media Card Readers	exc VAT	inc VAT
CompactFlash Parallel Reader with RISC OS Drivers	79.00	92.82
SmartMedia Parallel Reader with RISC OS Drivers	79.00	92.82
+ Add Photodesk's PhotoShow Software	20.00	23.50
+ Add Warm Silence Software's Win95FS	25.00	29.37

Long Life Digital Camera Batteries	exc VAT	inc VAT
5 Hour Charger with 2 sets of 4 AA 1500mAH Batteries	20.00	23.50
Additional 2 pack of AA 1500mAH Batteries	5.00	5.87

Digital Camera Media

SmartMedia Media	exc VAT	inc VAT
8MB	8.40	9.87
16MB	9.60	11.28
32MB	16.20	19.03
64MB	25.20	29.61
128MB	52.80	62.04

CompactFlash Media	exc VAT	inc VAT
8MB	15.60	18.33
16MB	13.20	15.51
32MB	18.00	21.15
64MB	27.60	32.43
128MB	49.20	57.81
256MB	90.00	105.75
340MB IBM MicroDrive	160.85	189.00
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TFT Displays

Iiyama TFT Screens	exc VAT	inc VAT
3817 15" TFT, 1024 x 768	335.00	393.62
3819 15" TFT, 1024 x 768, DVI-I, Optional Audio Upgrade	375.00	440.62
3835 15" TFT, 1024 x 768, DVI-I, USB, Rotation	419.00	492.32


3817, 15" TFT


3819, 15" TFT


3835, 15" TFT

4314 17" TFT, 1280 x 1024	469.00	551.07
4315 17" TFT, 1280 x 1024, DVI-I, Optional Audio Upgrade	525.00	616.87
4332 17" TFT, 1280 x 1024, DVI-I x 2, Video, USB, Rotation	615.00	722.62


4314, 17" TFT

4315, 17" TFT


4332, 17" TFT

4611 18" TFT, 1280 x 1024	649.00	762.57
4636 18.1" TFT, 1280 x 1024, DVI-I, Video, USB, Audio	699.00	821.32
4637 18.1" TFT, 1280 x 1024, DVI-I x 2, Video, USB, Rot'	765.00	898.87
4831 19" TFT, 1600 x 1200, DVI-I, USB, Audio, Rotation	1,160.00	1,363.00


4611, 18" TFT


4636, 18.1"TFT


4637, 18.1" TFT


4831, 19" TFT

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Iiyama CRT Screens	exc VAT	inc VAT
Vision Master 1352, 15" CRT, 1024 x 768 @ 67Hz	91.00	106.92
Vision Master 1402, 17" CRT, 1024 x 768 @ 85Hz	125.00	146.87
Vision Master 406, 17" CRT, 1280 x 1024 @ 80Hz	179.00	210.32

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June 2002

CRT Displays

Vision Master 407, 17" CRT, 1600 x 1200 @ 75Hz	189.00	222.07
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Vision Master Pro 413, 17" CRT, 1600 x 1200 @ 75Hz	169.00	198.57
Vision Master 1451, 19" CRT, 1600 x 1200 @ 75Hz	165.00	193.87
Vision Master 452, 19" CRT, 1600 x 1200 @ 75Hz	230.00	270.25
Vision Master Pro 452, 19" CRT, 1600 x 1200 @ 75Hz	265.00	311.37
Vision Master Pro 454, 19" CRT, 1800 x 1440 @ 85Hz	285.00	334.87
Vision Master 505, 21" CRT, 1800 x 1440 @ 75Hz	480.00	564.00
Vision Master Pro 511, 22" CRT, 1800 x 1440 @ 75Hz	475.00	558.12
Vision Master Pro 512, 22" CRT, 2048 x 1536 @ 85Hz	545.00	640.37



VM 1402 17"



VM 1451 19"



VM 505 21"



VM Pro 512 22"

Printers

Epson Colour Laser Printers	exc VAT	inc VAT
AcuLaser C2000PS, 600dpi, 20ppm mono, 5ppm colour.	1,672.50	1,965.19
AcuLaser C2000PSDT, with Duplex and extra paper tray.	2,468.75	2,900.78
AcuLaser C4000PS, fast postscript network colour laser.	2,395.00	2,814.12


Epson C2000PSDT Colour Laser

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Starting at just £1,672.50

HP Laser Printers	exc VAT	inc VAT
HP LaserJet 2200D, 1200dpi - 18 PPM - Duplex	573.85	674.27
HP LaserJet 2200DT, as 2200D with additional paper tray	700.35	822.91
HP LaserJet 2200DN, as 2200D with Network Interface	688.85	809.40
HP LaserJet 2200DTN, as 2200DT with Network Interface	948.75	1,114.78
HP LaserJet 4100, 1200dpi - 24ppm	803.85	944.52
HP LaserJet 4100N, as 4100 with Network Interface	1,033.85	1,214.77
HP LaserJet 4100TN, as 4100N with additional paper tray	1,148.85	1,349.90
HP LaserJet 4100DTN, as 4100TN with duplex	1,378.85	1,620.15

HP Colour Laser Printers	exc VAT	inc VAT
HP Colour LaserJet 4550, 600dpi, 16PPM Mono, 4 PPM C	1,378.85	1,620.15
HP Colour LaserJet 4550N, as 4550 with Network Interface	1,608.85	1,890.40
HP Colour LaserJet 4550DN, as 4550N with duplex	2,472.50	2,905.19
HP Colour LaserJet 4550HDN, as 4550DN with 128MB	2,655.00	3,119.62

Projectors

Phillips	exc VAT	inc VAT
cSmart, SVGA 1000 ANSI Lumens	1,602.00	1,882.35
cBright, SVGA 1500 ANSI Lumens	1,993.20	2,342.01

SONY XGA Projectors	exc VAT	inc VAT
CX10 XGA 1200 ANSI Lumens (ex-demo)	2,064.25	2,425.49
CX11 XGA 1500 ANDI Lumens	2,792.20	3,280.83

Scanners

Epson SCSI Scanners	exc VAT	inc VAT
Perfection 1640SU (1600dpi) USB/SCSI	211.91	248.99
GT7000 (ex-demo) SCSI	70.00	82.25


Epson Perfection 1640SU Scanner

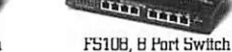
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FS105, 5 Port Switch


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Design IT 10mbps RISC PC/A7000 NIC	94.00	110.45

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2 Meter, CAT 5 Patch Cable (Blue)	2.10	2.47
3 Meter, CAT 5 Patch Cable (Blue)	2.70	3.17
5 Meter, CAT 5 Patch Cable (Blue)	4.34	5.10
15 Meter, CAT 5 Patch Cable (Blue)	17.15	20.15
30 Meter, CAT 5 Patch Cable (Blue)	28.00	32.90
Elcon Diva 1830 ISDN Router	229.50	269.66

Power Backup

APC UPS	exc VAT	inc VAT
700va iNet	196.80	231.24
1000va iNet	255.13	299.78
1500va iNet	350.40	411.72
2200va iNet	538.69	632.96

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A Questioning Attitude

With the release of the Riscstation Portable imminent we invited readers of Acorn User to submit their own questions which we passed on to Roy Heslop of Riscstation to answer.

Roy has done us proud with a lot of detailed and useful information provided under the barrage of detailed questions we were presented with.

So without further delay let us go straight to the questions that you wanted the answers to

From: Andrew

If you order a Riscstation portable without the docking station, are you able to install software from a CD over a network either from Windows or a Risc PC or something else?

Roy: Yes as this is one of the primary considerations, we have tried to make it as easy as possible to own one of our portables so this type of option will be available.

From: Wim Ekels

Which ports will definitely be on the laptop itself:

Roy: There has been a lot of speculation about this, most of it wrong, so let me set the record straight here and now: Ethernet 100base with BootP will be supplied as standard, USB will it be on board and working, it will use the same software interface as the new USB cards being released for the older machines so there will be no compatibility problems there.

You will be able to use a USB printer with the portable itself and there will be a parallel port on the base station. There is an infra-red port on the machine which will be ready for future development.

Wim: What version of Riscos 4 will be on it and will this be upgradable to Select.

Roy: It will be at least RISC OS 4.03, and we are working with RISCOS Ltd to make sure Select is ready for release as well.

Wim: Will there ever be a possibility to have a larger screen.

Roy: Not without a new case, and a total redesign, but if you mean can one be plugged in check out the specifications later on in this article.

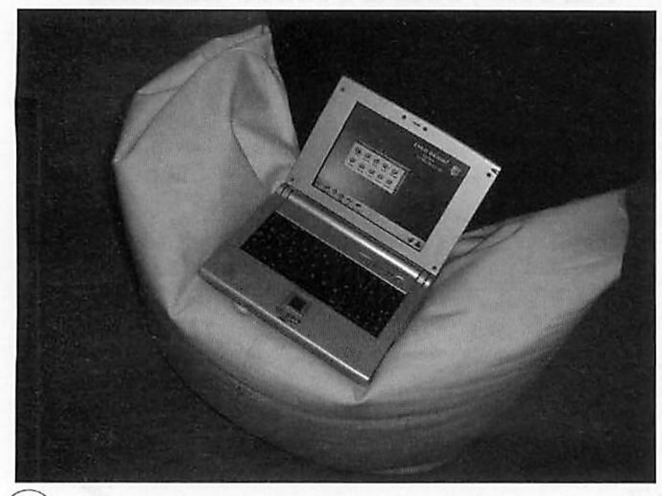
Wim: And now for the last of my questions how many did they sell already? It is whispered that it is 130 units and I know it is more than 15 for just one dealer in the Netherlands. And is there going to be a second production run?

Roy: Naturally I can't be expected to say how many we have orders we have, but I can say this: It's more than what you've stated; I can't say anything about what individual companies have ordered; and further production runs depend completely upon demand.

From: Paul

My portable is already on order and I cannot wait to use it. So here are my questions for Roy: You have 50ns RAM available for the RiscStation, will it also be available for the portable? More importantly (if it is available) will it be possible to put several of them in to get 128MB of fast RAM, or is an even faster solution on the way?

Roy: The 50ns memory will be standard on the portable and it is intended to provide room for expansion to 128MB.



Paul: How long will we have to wait before we can use USB printers, scanners and so on, because it may be good to have a USB port, but better if it can be used. Will the drivers be developed by RiscStation or someone else?



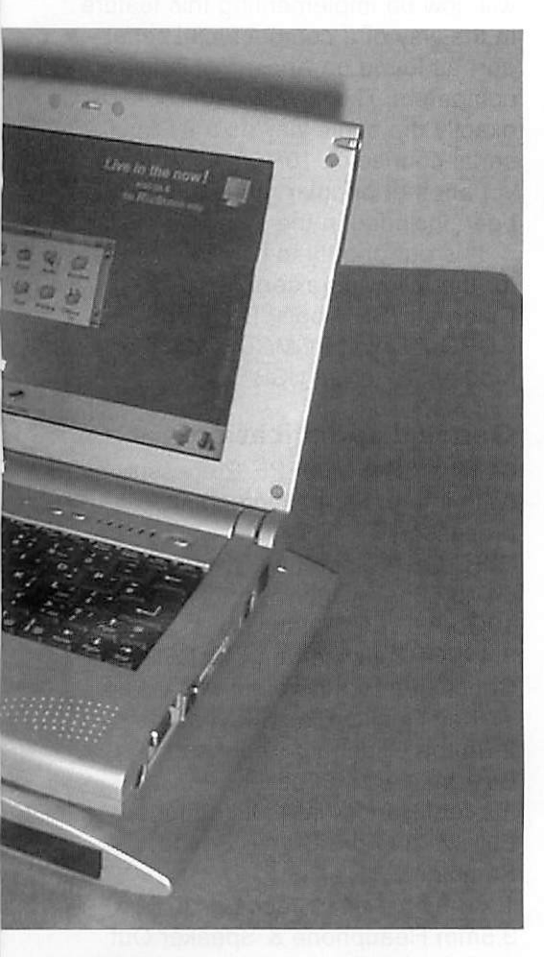
Roy: A great deal of work has already been put into USB drivers by the partners of the RISC OS USB system's designers. Third party developments are already in hand and we at Riscstation have future developments lined up and ready to roll. We can't give an exact schedule of when and what, these are commercially sensitive but we are working on it.

And finally an anonymous question: Will the irDA work with my Psion Travel modem or my Nokia mobile phone, for logging on to the Web or connecting to my computer at work with Hearsay. Are there any drivers?

Roy: Not currently but we have gone to the expense of providing the hardware as standard. So it is only the drivers that will be needed.

Then we asked: When?

Roy: The design is finalised, the software is frozen, we are now dependent on the manufacturers to roll out the machine. I am as excited as you are.



Specifications

The dimensions are 250mm(width) x 200mm(length) x 30mm(height) The weight of the portable base unit is about 1.3Kg. The case is cast in a magnesium alloy which gives the unit an extremely modern look and feel. To touch it feels like a space-age material, and to hold it feels light but substantial. From the moment we saw the prototype unit we knew we were looking at a first serious and modern RISC OS machine that was presentable to non-RISC users without the word 'old' passing their lips. You really must see, touch and use the new system to appreciate its quality — it's remarkable.

The Onboard Screen

The screen is an 8.4" TFT display with touch screen capability. The operating resolution is 800x600 pixels showing 32 thousand colours on screen, though our ongoing developments may see the new portable sporting 64 thousand colours.

The touchscreen is another innovation that launches our new portable into the modern computing market. RISC OS will be fully navigable using the high-resolution touchscreen, as well as giving you the ability to draw diagrams and so on, directly onto the screen!

The pen is used mainly as a point-and-click device, enabling you to drag-and-drop, double-click to open and run programs, and to generally navigate through RISC OS. Menu button operations are handled via the buttons on the portable, though we are currently looking into ways of handling 'virtual' buttons with the pen.

Sitting in front of the modern, stylish magnesium console and navigating through the operating system with the weighty metal pen on the screen is fantastic. Definitely something to be proud of while using on the train, and robust enough to trust children with in the classroom.

External Monitoring

It is also possible to drive external monitors, televisions or projectors for presentations or tutorials. External screen resolutions up to and including 1600x1200 pixels are achievable with the new RiscStation portable, and it is also possible to view on the LCD and external displays simultaneously in certain resolutions.

A modern SVHS output is included for connection to televisions, projectors or video recorders etc. that are equipped with SVHS, SCART or video input connections.

Input devices

A glidepoint touchpad with two buttons is set into the magnesium alloy casing, below the keyboard. The keyboard itself has adequately sized keys, which sound out quality with every tap. The contrast between the metallic magnesium casing and black keys is cool, which lends to the modern, if not futuristic, look.

The touchpad is compact yet perfectly comfortable to use. It also acts as a button if tapped, so combined with the two buttons below it, gives compatibility with the three-button logic employed by the RISC OS operating system as well as feeling perfectly natural to use.

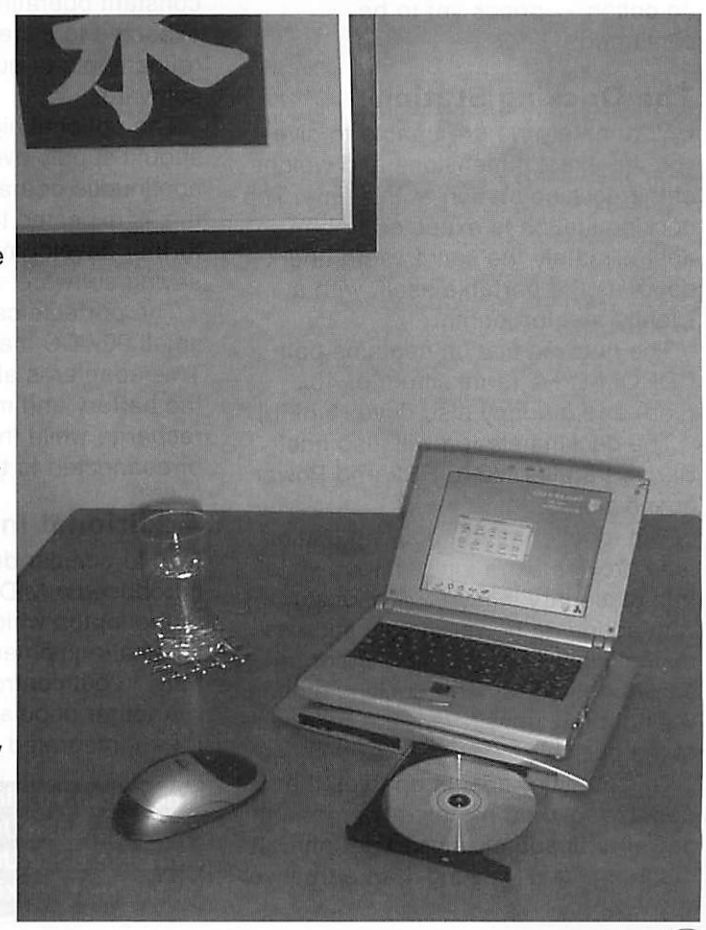
Support for an external mouse is catered for via the onboard USB or Mini Serial Socket should neither the glidepoint nor touchscreen be sufficient, though external mouse support may not be available immediately at the time of launch.

The Processor

The processor used inside the portable is the 64Mhz ARM7500 FPE. RiscStation computers contain high quality, modern motherboards designed not to restrain the ARM7500 processor and to let it perform up to the manufacturer's specification.

Operating system

The operating system used on the RiscStation portable is RISC OS 4. Programming user details into the operating system is technically possible, as with the RiscStation R7500 machines, the portable has been designed in such a way as to allow this function, though we currently do not support it fully. With the obvious security concerns that go with owning a portable computer, we will be addressing this feature in the near future.





solution to those who want maximum portability, minimum luggage. Less weight, less bulk, longer running times — a truly portable system. For those who do require CD or Floppy access while on the move we will soon be releasing lightweight, slimline solutions that will simply plug into the USB ports and go!

Memory

The portable contains 64Mb of 50ns memory as standard, providing more than enough memory for RISC OS and the memory-economic programs that run on it. Our ongoing developments may provide us with a memory upgrade socket, though this is purely space dependent. 32Mb machines may be manufactured for clients with such a requirement.

Hard Drive Storage

The standard portable arrives with a 10Gb 2.5in high-speed IDE drive. Machines fitted with an optional 20Gb (or larger) drive will be available as an option — prices yet to be confirmed.

The Docking Station

Unfortunately we are unable to give you the exact dimensions and weight of the docking station at this time. The docking station is expected to be approximately the same width and depth as the portable itself, with a slightly greater length.

The docking station contains both a CDROM Drive (a minimum of 40x read) and a floppy disc drive (1.6Mb).

The docking station will also host Serial, Parallel, VGA, PS2 and Power connections.

The function of the docking station is to provide extra input/output while in a stationary location or a location with adequate power supply such as mains supply, or cigarette lighter socket and so on. The docking station will not draw power from the battery of the portable.

This modular design enables the portable to shed the extra weight and power drainage of unused peripherals out in the field, making it an attractive solution to those who want maximum portability, minimum luggage. Less weight, less bulk, longer running times — a truly portable system. For those who do require CD or Floppy access while on the move we will soon be releasing lightweight, slimline solutions that will simply plug into the USB ports and go!

Power

The Lithium Ion battery unit features an excellent quick release system that allows the battery to be changed in seconds. The silver battery 'stick' forms part of the portable's rear structure and is easy to grip, swap and store. You can immediately tell that even this relatively insignificant area of design has been carefully thought through, just another detail that adds to the overall quality feel of the portable.

The standard battery provided should supply in excess of two hours constant operating time, and this is expected to increase with further refinements of our power saving software.

The optional high capacity battery should supply over four hours of continuous operating time, and again this is expected to increase with further development of our power saving software.

The portable can be powered by the small 20v DC mains adapter included. This adapter is also used to recharge the battery and may also be used to recharge while the portable is in use or connected to the docking station.

Additional Information

Due to popular demand we have introduced a MIDI port to the design of the laptop which will cater for musical equipment control and other MIDI in/out controlled devices.

Another popular request has been for an integrated serial port without the need for the docking station. We will now be implementing this feature in the way of a compact mini serial port as found on Apple Macintosh computers. This port will function in exactly the same way as a 9 Pin serial connector. 10/100 Networking, yet another popular request, has now been included in the standard design.

It is our priority to develop support for the following external devices: External USB Floppy Drive and CDROM Drive; PCMCIA Card 56k Modem; External USB CDRW.

General specifications

64 Mhz ARM7500FPE Processor (with integrated floating point co-processor)
RISC OS 4 Operating System
64Mb 50ns System Memory
10Gb 2.5" EIDE Hard Drive
8.4" TFT Touchscreen Display
Concealed Heavyweight Metal Pen
77 Key Quality Black Keyboard
2 Button Glidepoint Touchpad
Built-In Stereo Speakers
Internal Hands Free Microphone
Full 16Bit OPL3 Stereo Sound Sampler & Mixer
1 x 3.5mm Mic In Jack Socket; 1 x 3.5mm Headphone & Speaker Out Jack Socket; 2 x USB Connections; 1 x Mini Serial Connector; 1 x Mini Midi Port; 1 x 10/100base Network Port; 1 x 15Pin VGA Connector; 1 x SVHS TV Output; 1 x PCMCIA Slot; 1 x IRDA Infrared Transceiver; 1 x 20v DC Power Connection; 1 x Docking Station Connection Port; Mains Power Supply included.

There will also be a selection of parts available such as mains power adapters, replacement touch-pens, midi and serial cables and so on.

We hope this collection of information is of use to you, and maybe gives you a little insight into our new product and how we are developing it.

Thank you to everybody that has made comments or suggestions — we have been listening! It is as a result of this feedback that we have now included features such as 10/100 networking, onboard serial, and MIDI compatibility.

The pricing options so far are as follows :		
Portable Base Unit	£999.00 + VAT	£1173.83 inc. VAT
Portable Base Unit & Docking Station	£1248.00 + VAT	£1466.40 inc. VAT
Additional Docking Station	£249.00 + VAT	£292.58 inc. VAT

Tracking media

In the last issue we managed to get a window showing, but it didn't do very much and once it was there we couldn't even get rid of it without quitting the application completely.

We can now move on to bigger and better things, and we are going to get our first taste of user interaction through the use of event handlers.

The first step requires a return and modification to the 'control' procedures. Programming is always a continuous process of refinement, sometimes it can be hard for a programmer to stop thinking "oh, if I just do that it will be even better/more streamlined/more efficient/cleverer." This may be the reason why programming projects are so often overdue.

Regardless of that there is a difficulty in S-Base which means that it is not easy to determine if the iconbar icon has been clicked with the Select or Adjust mouse button. It was always my intention to make the control window pop-up when the iconbar icon is clicked with Select and disappear when clicked with Adjust.

This had to be modified as a concept, instead clicking with either will simply toggle the state of the window, if it's open it will close and vice versa. This in itself is easy to achieve, but something else came to mind as I made the simple changes to implement this: What is the point of making the control window appear and disappear if the other application windows stay visible?

Indeed one of the advantages of both MacOS and (in some instances, though not always) Windows is the ability to get rid of all the windows associated with an application, and then bring them back exactly as they were when needed.

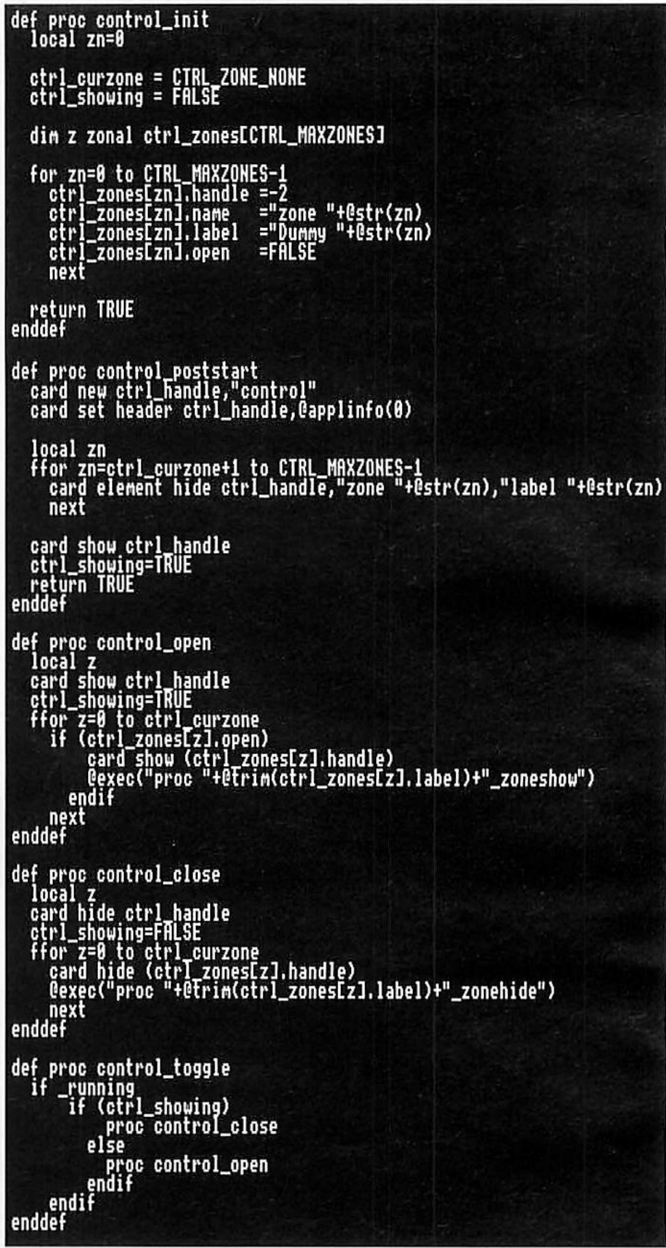
I had two choices, forget the idea of making the control window disappear, or implement a system to make all the windows appear and disappear. Naturally the latter is preferable but is it easy? As it turned out, due to the way the application is put together: yes, it is easy.

The first step was to implement a 'ctrl_showing' variable, this is set to TRUE when the control window is on screen and FALSE when it isn't. This is the flag that is used in 'proc control_toggle' to decide whether to call either 'proc control_open' or 'proc control_close'.

Next we needed to be able to hide all the other zone windows that might be on-screen, which is easy, but we also need to know which ones were visible (when we closed them all) so that when we re-open the control window we only open those zones that were previously open — restore all the windows exactly as they were when they were hidden.

When it comes to the actual zone windows these are displayed under the control of the 'control' system, which actually keeps a record of whether the window is open or closed.

All we need do is hide the zone windows that are currently open, but don't set the 'ctrl_zones[].open' variable as FALSE, keep it as TRUE. Then when we come to re-display the windows we just look through the list of zones for the ones that are marked as open, and re-display them.



```
def proc control_init
  local zn=0

  ctrl_curzone = CTRL_ZONE_NONE
  ctrl_showing = FALSE

  dim z zonal ctrl_zones[CTRL_MAXZONES]

  for zn=0 to CTRL_MAXZONES-1
    ctrl_zones[zn].handle =-2
    ctrl_zones[zn].name   ="zone "+@str(zn)
    ctrl_zones[zn].label  ="Dummy "+@str(zn)
    ctrl_zones[zn].open   =FALSE
    next

  return TRUE
enddef

def proc control_poststart
  card new ctrl_handle,"control"
  card set header ctrl_handle,@applinfo(0)

  local zn
  ffor zn=ctrl_curzone+1 to CTRL_MAXZONES-1
    card element hide ctrl_handle,"zone "+@str(zn),"label "+@str(zn)
    next

  card show ctrl_handle
  ctrl_showing=TRUE
  return TRUE
enddef

def proc control_open
  local z
  card show ctrl_handle
  ctrl_showing=TRUE
  ffor z=0 to ctrl_curzone
    if (ctrl_zones[z].open)
        card show (ctrl_zones[z].handle)
        @exec("proc "+@trim(ctrl_zones[z].label)+"_zoneshow")
      endif
    next
enddef

def proc control_close
  local z
  card hide ctrl_handle
  ctrl_showing=FALSE
  ffor z=0 to ctrl_curzone
    card hide (ctrl_zones[z].handle)
    @exec("proc "+@trim(ctrl_zones[z].label)+"_zonehide")
    next
enddef

def proc control_toggle
  if _running
      if (ctrl_showing)
          proc control_close
        else
          proc control_open
        endif
    endif
enddef
```

Figure I: The new code for the control procedure resource

This works well as a concept but is missing one thing, it is entirely possible for a zone to have opened its own windows which 'control' knows nothing about. So we also have to send a message to the zone to tell it to hide its windows in such a way that it knows which were open. Then, when it's time to display the zone again to re-open only the ones that were previously open.

The modified code to do all this is shown in Figure I.

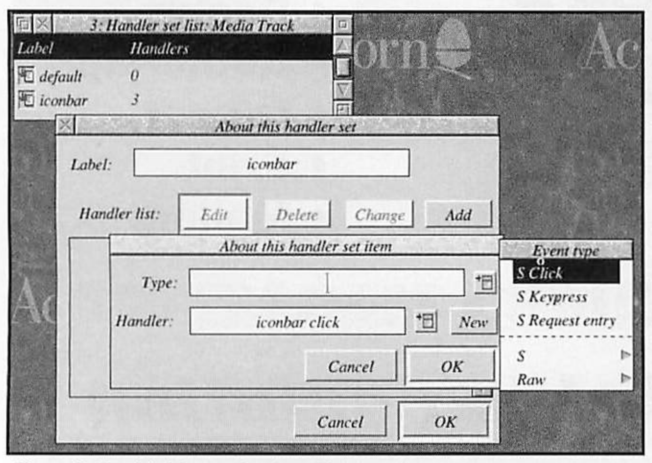


Figure II: Establishing an iconbar click handler

Handling events

All this is very nice but it won't do anything until we link clicks on the iconbar icon to this code. Right now we have a menu resource handling the Quit and Info items, unfortunately we have to discard and replace this because we are going to attach a set of event handlers to the iconbar instead.

In a multitasking environment as we have on RISC OS each application has to work in cooperation with all the other programs. In single-tasking programs the application would be in a certain state

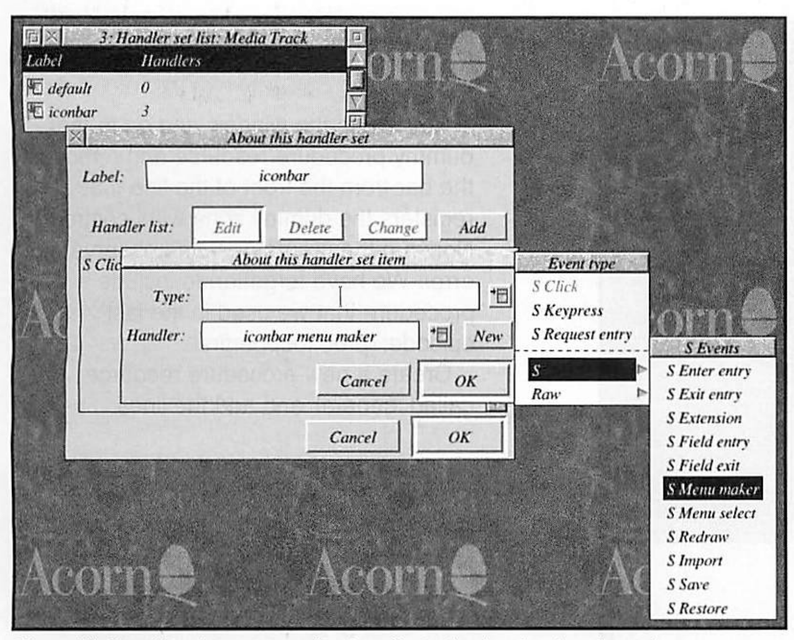


Figure III: Attaching the menu maker handler to the iconbar handler set

and will have a fixed set of responses: for example if you go back to the old Wordwise word processor on the 8-bit BBC Micro, the program would sit presenting you with a menu of options. You selected one of the options and then did whatever was appropriate at the point (entering a file name or whatever).

A multitasking program, however, can be in a whole set of different states: you could be editing in several different windows, and searching a database simultaneously.

What happens is that, when you press a key or click the mouse, the Wimp sends a message (an event) to the application saying that such-and-such occurred in the specified window. The application then performs the appropriate action.

Now S-Base shields you from the technicalities of exactly how that occurs but for each card/window you must provide a set of handlers for each type of event you want to process. Some things are automatic, for example, if something is being typed into a field you don't have to worry about the details for every letter that is entered — although you can if you want to.

So we need handlers and handler sets. These are resources just like procedures, templates and menus. There is a default handler set that does nothing, this is the one that is selected automatically by all objects that need handlers sets. There are a couple of special handler sets, one of which is 'iconbar'.

If you create a handler set called 'iconbar' it is automatically attached to the iconbar icon. Don't create it yet but instead go to the 'handlers' resource and open it, create a new handler called 'iconbar menu maker' which should contain this line of code:

```
if _running then menu set
@menufind("iconbar")
```

The first point is that this doesn't allow a menu to be popped up until the program is running properly, then it looks for the handle of a menu called 'iconbar' (which is already in the menu resource). Finally this menu is set as being the one to pop up.

Next we need a resource called 'iconbar menu select' which contains the code:

```
case @menuselect(0)

  when IBM_INFOBOX
    local c
    card new c, "info"
    card show c
    card poll c
    card dispose c

  when IBM_QUIT
    poll exit

endcase
```

This is a bit more complex. The function @menuselect, returns the number of the item in the menu that has been selected. The parameter, 0 in this case, refers to the depth of the menu and sub-menus. Zero is the first level of the menu, 1 is the second level, 2 is the third and so on. Our iconbar menu has only two items Quit and Info, with no sub-menus.

We use the two variables we created a while back to indicate what to do when each specific entry is clicked. IBM_ if you recall stands for 'iconbar menu'. If we change the number of entries in the menu we only have to change the values in the Constants resource.

The entry for Quit is clear, we exit polling of the application which actually takes us back to the middle of 'startup' in the Programs resource at which point the program carries out its windup operations.

The entry for Info is more complicated, although once again S-Base handles the complexities. What happens is that when the mouse pointer goes over the sub-menu arrow this code is called. All we do is create the info window and display it, S-Base puts it in the right place, and then poll the window.

When the mouse pointer goes back to the menu S-Base automatically does a poll exit for the info window and control returns here and the window is disposed and the code exited.

Notice that we don't need to check for the program _running in this handler because we can only get here from the 'iconbar menu maker' and that only works if _running is TRUE.

Finally we need a handler called 'iconbar click', what to do when the iconbar gets clicked. Once again we have an extremely simple one line piece of code:

```
if _running then proc
control_toggle
```

Just call 'proc control_toggle', as long as the program is running. In this procedure (Figure I) we check to see if the control window is open, if it is we

```
dummy_appnum = proc app_register_item("dummy")

def proc dummy_init
  return TRUE
enddef

def proc dummy_startup
| dummy_zonenum = proc control_register_zone("dummy","Dummies")
  return TRUE
enddef

def proc dummy_poststart
  return TRUE
enddef

def proc dummy_windup
  return TRUE
enddef

|===========================================================

def proc dummy_zoneshow
enddef

def proc dummy_zonehide
enddef

|===========================================================
```

Figure IV: Building the dummy zone, make sure the control registration is commented out to avoid problems

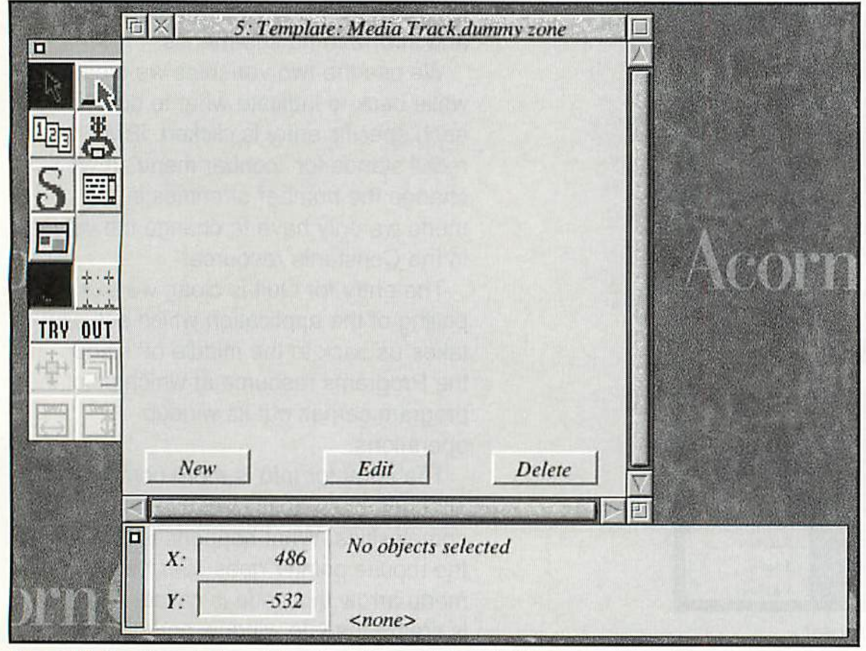


Figure V: Creating windows takes two stages first we build the template of the window with any standard RISC OS buttons, icons and so on

close it along with any zone windows and tell the zones to close their windows as well if they have any in such a way that they know they were open before and will be able to re-open those ones.

If the control window is already closed, open it, then run through all the zones and re-open any windows that were previously opn, also tell those zones to re-open any of their own windows that were open.

Now move to the Handler sets resource and create a new handler set called 'iconbar', click on 'Add' and a sub-dialogue box appears, from the lower menu select the 'iconbar click' handler and then click on the upper menu icon and choose 'S Click' (Figure II). Repeat for menu maker and menu select, you will find these in the sub-menu as shown in Figure III.

As this is the special iconbar handler set there's no need to do anything else although for a window you would need to attach the handler set to the correct window.

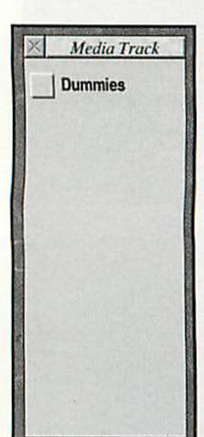


Figure VI: The control window in all its glory, it even disappears on command

Points to note here are that you can attach the same handler set to different objects if it is appropriate to do so. And, at a lower level, you can attach a handler to more than one handler set if it is written in such a way that it is transferrable.

Now if you run the application you will find that the menu will appear as expected and functions correctly. I did find a little error in 'control_windup' which is why it has been generating an error when the application exits, this no longer occurs.

But better than this, clicking on the iconbar icon with Select or Adjust toggles the control window on and off. We have successfully created a handler set.

Into the Zone

We are now ready to create our first real zone, although if truth be told we are going to call it 'dummy' so go to the procedures resource and create a new resource with that name and type in the code shown in Figure IV.

This procedure contains all the basics of what we need for a zone, however we have to comment out the line where it registers itself with 'control'. If we don't we get an error because, so far, we haven't created a window, and 'control' assumes there will be one with the name 'dummy zone'.

To begin this new part of the application we must create a new template this should be a simple, rectangular window the same height as the control window and a little bit wider. Using the icon create tool make three 'action' buttons and put those along the bottom. Give these the text of New, Edit and Delete — most of the zone windows we use will have these. (Figure V)

Now go to the Formats resource and create a new format with the name 'dummy zone'. You can see that, because it has the same name, S-Base automatically inserts the name of the template. Click Okay and then Shift+double-click on 'dummy zone' in the Format list window. This will bring up the window, now use the 'Create format icons' tool to turn each of the buttons into format icons.

Now close the window and go to the dummy procedure resource and remove the bar from the front of the line that registers the dummy zone with 'control'. Now run the program — and observe the error. We have forgotten to include a procedure that we used in the last episode: 'proc toupperfirst'.

Create a new procedure resource called 'general' and add the lines:

```
def proc toupperfirst(s)
  return @toupper(@left(s,1))+@mid(s,2)
enddef
```

I shall leave this as an exercise for the reader to figure out.

Save the resource, and the whole program, and try again running it. The control window will appear, but this time with a single entry: a button that is off, along with the name 'Dummies', see Figure VI. You can click the button on and off but, since we haven't attached a handler set to the control window, nothing happens. But this certainly brings us much closer to our goal.

Conclusion

This time we looked at creating a handler set for the iconbar and using it to toggle the control window on and off. Plus we managed to get a zone registered and appearing in the window.

As described at the beginning of this article programming is, to some extent, an evolution of ideas. As this issue was being completed a further extension of the opening/closing windows dawned on me. Though it still comes down to simplification.

I have said that we must send a message to the zones telling them to close all their windows or re-open all the ones that were previously closed. This is inefficient. It means that all zones must contain the same code to store the open window handles, then to close and re-open them.

This should really only be done once, and it can be done in the control procedure resource. So next time we will take a look at that plus use more handlers to tie the zone window into the control window. If we have the space we may even create an actual zone to start the real application.

At last.

Steve Turnbull
stevet@acornuser.com

The Networked Home

Picture the scene — a new music album is advertised on the TV. The viewer wants it straight away! Going to the shop or ordering on-line is too long to wait ... so they simply click a button on their remote control and download it direct through the broadband operator's network, to an audio juke box on their in-home stereo system. But they want to listen on their journey to work? Another click of a button sends the album direct to their car stereo's harddisk drive ...

This scenario may resemble a scene from science fiction but Pace is developing home gateway technology that will use broadband networks to enable these multimedia services and much more, within the networked home of the not-too-distant future.

Andy Trott, Divisional CEO at Pace is keen to keep a reality check on the services delivered via the networked home. "Forget talking fridges and smart cookers that serve your favourite dish then clean up afterwards. For the networked home to be successful, the industry needs to develop practical services that will have real and effective benefits for consumers and will provide sustained revenue opportunities for operators."

A recent report from the 'Organisation for Economic Cooperation and Development' (OECD) suggests the smart home market in Western Europe and the US could be worth $35 billion by 2005. As this research shows, revenue opportunities for network operators are immense. And a little black box already installed in millions of homes around the world is all that is needed to make it a reality.

From STB to home gateway

At Pace, we are capitalising on the strengths of the digital set-top box to drive the networked home development. Using the high-speed, broadband modem already integrated within the set-top box and the high-bandwidth, 'always-on' data pipe connection to the network operator, we are evolving the set-top box into an even more powerful, interactive 'home gateway.'

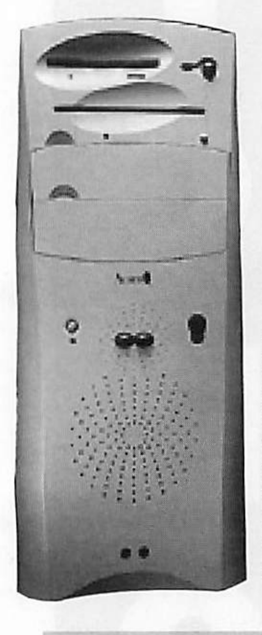
Positioned at the heart of the networked home, the home gateway will act as a portal, delivering audio, video, voice and data into, around and out of a home. It will provide vast opportunities for consumers to control everyday electronic products in the home via a remote control or 'web pad' device, from home PCs, telephones and kitchen appliances to diagnostic monitoring, security devices, utility metres and games consoles.

No New Wires

We have adopted a 'no new wires' approach to home networking. Research shows that home networking will not be attractive to the mass population if it requires extensive rewiring of homes or significant management or investment by the home owner. Similarly, network operators want to avoid the expense and burden of installing and maintaining their customer's networked home infrastructure.

Therefore, we are using wireless technology and existing wired technologies to connect the home

gateway with appliances around the home. Already there are two proven, established and robust wireless technologies, DECT and 802.11b, which offer an unrivalled combination of high performance, reliability and cost-effectiveness for the network operator. Pace engineers are constantly evaluating the many wireless standards available on the market to test their suitability for home networking.



The opportunities supplied by big business and big operators have never turned to dust before, have they? Ironic how the company that bought RISC OS dreams the same dreams as the one that failed to bring us this.

Gateway expander

As part of the 'no new wires' strategy, we have developed 'Gateway Expander' that plugs into the home gateway to establish the home network infrastructure. Gateway Expander brings together wireless, wireline and powerline networking technologies into a fundamental building block. Acting as a wireless base station, it enables two-way communication from the broadband network external to the home, to peripheral electronic devices connected internally to the home network.

The empowered viewer

The home gateway-enabled smart home is not only simple to use and maintain – the addition of a self-provisioning system will also enable consumers to easily connect their own homes in as little as 15 minutes.

Once activated, the consumer can begin to glimpse just some of the potential of the networked home.

One of the first services we plan for consumers is the ability to connect to the Internet at almost 10 times today's PSTN speed or even at broadband corporate speeds. We have developed a home networking device called pcConnect that establishes a wireless link with Gateway Expander to provide high speed Internet access to the personal computer via the home gateway's integrated broadband modem. Using these technologies, the network operator would create revenue streams by charging users for their chosen Internet speeds.

Triple-Play

New opportunities to cost-effectively deliver video, data and voice services into one service package through the networked home could create important new revenue streams for operators. Cable operators could encourage existing digital TV and Internet subscribers to subscribe to its telephony services as one packaged service.

Remote Diagnostics

Pace is working with Invensys, the

The alternate view

Automated homes of the future have been dreamt about since Jules Verne, when people began to realise that you could take current technology and expand its usefulness. Frankly I find the idea laughable.

I admit I was one of the people that enthused hugely when Acorn, as Online Media, where demonstrating video-on-demand services via standard cabling all those years ago — how many? Was it six or seven?

I ooohed and aaahed with the rest of them over how they could accidently disconnect the video stream and the image would freeze and miraculously restart it when the plug was put back in. Even then they were talking about all the things that are being spoken about now.

I am well aware that wireless technology does mean that it is possible to create home networks much more easily and hence integrate a wider variety of boxes, it doesn't just have to be computers, it can be printers and scanners and kettles and toasters and alarm systems etc etc ad infinitum.

Haven't we been here before with Red Boxes? I know many of you won't remember Red Boxes but they were another great idea. This time it was to create a control network in your own home using the mains electricity system. one Red Box could control other Red Boxes and you could have your alarm system and the light switches all being controlled from your personal computer — your BBC Micro. I may recall incorrectly however the point is there.

This time it's wireless networks and I suppose you just have an add-on unit that plugs into the power socket and then you plug the item to be controlled into that? That way you use your friendly graphical user interface to correctly configure the unit — hoping that you ae not accidentally configuring next doors kettle to come to boil every twenty-five minutes while you're on holiday.

Just how are you going to be sure that the unit you've just plugged in is known to your system and nobody else's in the street?

But call me a cynic, yes I admit it I am a real cynic but just take a look at David Dade's article. War driving. An interesting term, a bit vague, a bit alarmist but nonetheless I would very much like to know how "they" are planning to make this wireless network secure (bearing in mind most people will have PCs) and preventing others stealing your network packets ... while simultaneously making it possible for network-illiterate (count me in on that one) to set these things up without it being a problem.

Have you ever tried setting up a network? I know I have. I bungled my way through and got something that worked at the end but even so...

Frankly I am not a happy bunny.

They are always trying to tell us that the "next big thing is upon us" when are we going to run out of next big things and get on to the real big thing

global leader in the Automation and Controls industry to enable remote monitoring of consumer goods such as boilers, washing machines, dish washers and freezers and heating, ventilating and security systems. Invensys could enable early warnings of component failures and subsequently provide more effective servicing when an engineer is called out.

With the home network in place, enhanced security services are also a possibility. Not only can the data networks be used for basic call back in the event of an alarm, but video surveillance, and managed remote access could be provided. Simple services such as activating lights while away from home could be programmed through a friendly, intelligent graphical user interface.

Practicality

These examples provide just a taste of the practical services that users would be willing to pay for, to make their busy lives easier, more manageable and enjoyable. The opportunities really are endless, some say limited only by the imagination.

So long as practicality is combined with the development of new services, future opportunities for network operators are immense.

Andy Trott

because I'm really fed up with all these next big things that really never turn out to be anything other than the next big failure.

And boy do they fail. But hey! What does it matter that we're all gullible fools who listen to the next big thing being promoted and say "wow" and believe it really is the next big thing. Well just stop and hold on a minute.

Look at what's being promised and forget all the hype. In have absolutely no objection to a network system that has no wires. Believe me. I work in an office with wires that lurk out of the way but occassionally leap out and trip the unwary traveller. I can do without that.

I could really do with a set of printers that don't need wires and I can just select the one I want and print — think of the opportunities, get yourself installed above Prontaprint and print via their printers, sneaking down to pick them up.

Scanners don't need to be networked, can you imagine the confusion when you accidentally scan something on the wrong machine and discover that you have the corporation secrets that you can sell for a million quid.

And the lights. Oh yes I can see someone returning from a liquid lunch and deciding how funny it would be to get all the loo toilet lights flashing in time to the Sex Pistols God Save the Queen (sorry Ma'am). Meanwhile a glitch in the system next door switches off the power to all your computers.

No, it has to be said I am a cynic but where do I queue for the new Red Boxes?

Rob Donaldson

Digital set-top-box decision

Choosing the right set-top box (STB) for digital pay television is a complex decision, which a broadcaster has to make carefully. It is even more important for a broadcaster planning to generate additional revenue by offering interactive TV services.

The set-top box is designed to receive the television signal, run the interactive applications and pass them to the TV. Its hardware and software depends on the nature of those signals and applications.

Each broadcaster follows a set of standards that help define what those signals look like. The most basic and commonly used is the MPEG-2 compression standard that allows you to broadcast highly compressed digital signals. The digital video broadcast (DVB) standards define the transmission format and describe the video and audio signals.

The ways in which the interactive applications are delivered to the STB are different between middleware vendors. However, there is a growing trend to use HTML and XML as the language to author and display the interactive services. This enables the applications to be developed by using the widely available Internet tools and to draw on the large number of programmers with Web development skills.

Hardware

The set-top box is a specialised computer designed for television. Its basic components are:

Computing Subsystem: the part of the STB that handles basic computing functions. This part includes standard computer components like CPU, memory and modems.

TV Subsystem: the part of the STB that understands and processes TV signals specifically. It includes MPEG-2 processing capability and video/audio output to TV or video recorder.

Conditional Access Subsystem: the part of the STB that permits or denies permission to view programs based on viewer entitlements. It includes the smart card and descrambling hardware.

Software

The STB software is made up of several distinct layers:

Hardware Drivers that interface between the software and the hardware. These are provided by the STB vendors.

Core Software that provides the software platform for the applications running on the STB. This category includes the operating system, boot loader, TV Core, middleware, and conditional access.

Applications that perform the functions that the viewers need from the ubiquitous electronic programme guide to the variety of interactive TV applications



A set-top box is just another computer with all the usual problems of processor speed, memory requirements and even hardware compatibility between vendors – but they won't be upgraded under the "PC model" of a new machine every 18 months. The average consumer isn't interested in upgrading, sounds horribly like another market we could mention. Maybe that's why ITV Digital ended in abject failure.

Inter Active

In a digital video broadcasting network, the STB is the interface between the network and the viewer. It is also the vehicle to run many applications, such as the electronic program guide, and interactive and enhanced TV applications.

As the popularity of interactive services grows among viewers, so will the opportunity to generate revenue for the broadcaster. The STB will need to have the capacity to support an increasing number of interactive applications, each with unique software and hardware requirements.

In general, interactive TV applications can be summarized into the following four categories:

One way interactive applications may include services such as weather reports, traffic reports, news headlines, sports statistics, sports news, games, viewer quizzes, local events calendar and schedules, and financial news and information.

In one-way interactive applications, a broadcaster bundles and transmits the information in the proper format and structure to the STB using the high bandwidth digital channel, and the subscriber will access the information interactively using their remote control.

Two-way interactive applications have all the functionality of the one-way interactive applications. In addition, two-way interactive applications allow two-way communication between the viewers and broadcaster. The viewers can send their response, feedback, and even transaction information to a broadcaster via the return path of the broadcast system.

Some typical two-way interactive applications are on-line betting, home banking, home shopping, share trading, and event ticket purchasing.

One-way messaging applications establish an efficient way for a broadcaster to convey information to the viewers. Such information can include emergency alerts, programme promotional messages and bulk mail messages from the broadcaster. One-way messaging can be broadcasted to group users and also can be unicast to selected viewers.

Two-way messaging applications require minimal interaction with the viewer at home. The viewer is asked to respond to a simple message that appears on screen. The viewer's response can be reported to the originator. Some typical two-way messaging applications include polling, lotteries, quizzes, and interactive advertising.

In order to attract more viewers, the interactive applications need some technical 'killer characteristics' to make them more engaging and entertaining:

• High quality video, audio and

graphics, with more fonts that can be scalable. All these characteristics influence the interface and are key differentiators for the viewers interacting with the service.

• Ability to synchronize the interactive service with the programming content. For example with a television shopping service, if the interactive service is synchronized with the live programming, viewers will be able to see an item on display and push the button to instantly buy that item. This will make the application dynamic and make it an integrated part of the real-time programming offering.

• Live video window within the data and information services to provide viewers a more dynamic service. For example, if a viewer is watching a documentary, they could activate the interactive option and then watch live programming in the scalable video window while simultaneously viewing on screen display of data or information relating directly to the content of the programming.

• Addressability. The capability of the application to address the individual subscriber according to their demographic information. This will give the broadcaster the ability to customize messages for an individual viewer, and open up new opportunities for viewer feedback, direct mail messaging, and targeted interactive advertising.

• Return path capability. Previously broadcasting was a vehicle for one-to-many transmission. Now with developments in interactive TV, the viewer is able to provide feeedback, request information or buy goods through their television. The return path is required for systems with this advanced functionality.

All of these characteristics need support from the set-top box, so what effect does that have on the STBs design?

New hardware

A broadcaster normally introduces interactive services gradually from the simple to the complex viewer navigation and operation. The STB is a consumer device that will be used in the home for a very long time, and the model of upgrading the hardware as seen in the PC market cannot be realistically implemented. A broadcaster has to ensure that the STB initially deployed in the market can still perform satisfactorily in several years time while running an increasing number of interactive applications.

The most affected part of the STB hardware is the computing subsystem. The CPU runs the software in the STB, and it has to be powerful enough to handle the applications. The experience of not having enough computational power in the PC world is now repeating itself in the STB. The applications are getting increasingly complicated and the graphics are getting richer. The CPU performance is the key to adding functionality to the box. The faster the CPU, the easier it is to add functions like browsing and interactivity to the box.

A few interactive services mentioned previously require multiple planes of graphical capability. It is certain the applications in the future, for example games, will require increasing amounts of computational and graphical power.

Apart from the CPU, the memory is another deciding factor to the performance of the STB. There are many types of memory used in the STB for storing software, character fonts, buffering video, and other uses. Identical to the PC, more memory means more performance and added future proofing for the STB.

A large amount of memory is used in STB's to hold the programs that handle the digital services. Storage is also required for supporting character-based languages such as, Chinese, Korean and Japanese. In the past, read-only memory (ROM) was often used for this. Today, ROM is being replaced in almost all STB's by the more flexible flash memory. Its major advantage is the fact that most of it can be erased and reprogrammed with new software delivered through the broadcast stream.

Flash memory is suitable for the main software that resides and runs the STB, rather than transient applications that change depending on which TV channel the viewer is currently watching and which interactive service is selected. Some of applications are best stored in the STB, such as the electronic program guide.

Another type of memory is dynamic random access memory, which is used in a STB for data storage and video/graphics decoding.

The CPU uses DRAM to execute its software as well as for information needed by the current application. For TV viewing, DRAM can hold a few days' worth of program guides. For interactive applications, it stores the application itself that is downloaded from the stream, and the data required for running the application.

The video DRAM is used in a STB for decoding and storing the video/graphics image that is being output to the television or video recorder. The amount of video DRAM required depends almost totally on the video resolution of the picture. There is an increasing trend that the DRAM and the video DRAM are shared in the STB.

The nature of the interactive applications require very rich graphical content. The number of graphics planes supported determines how the STB will be able to put text and/or graphic bitmap overlays over the TV picture, and how many different layers can be supported.

New software

With the right hardware in place, the next most important decision that the broadcaster has to make is the choice of middleware or virtual machine. This layer provides a level of abstraction from the hardware that gives application developers access to all features and functions of the STB and of network data, but without being tied to the specific hardware application. This is what makes a STB able to run a variety of applications, including unknown ones that will be written in the future.

The variety of different middleware approaches makes it particularly hard to nail down what is really needed.

First and most important, does it support the interactive applications to be run now and in the near future? How many different applications are available? Are the middleware and its applications integrated with conditional access you want?

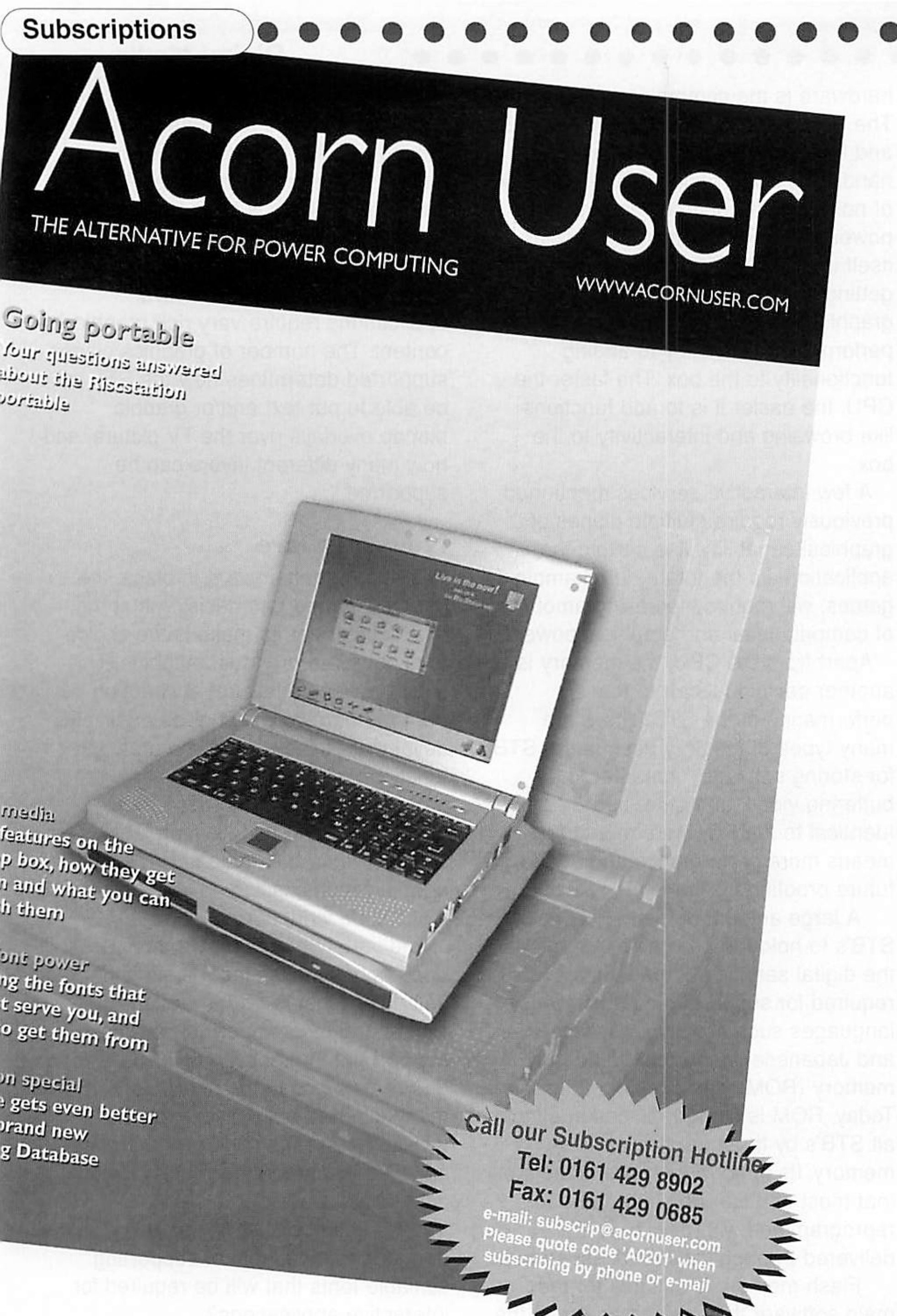
Does it support the languages needed? Is it capable of supporting scalable fonts that will be required for interactive applications?

Whatever the choice of middleware is, it is important to make sure it can be upgraded at a later date, just like the applications themselves.

Conclusion

The latest STB technologies offer a broadcaster many choices to provide exciting interactive services and to generate revenue. The selection of STB technologies is one of the most important decisions the broadcaster has to make. The broadcaster has to make sure that the STB they select will enable them to offer the latest applications to their box population.

Xiaoyan REN, Willy Hu



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A Basic Font Set

When we move to **script, handwriting and calligraphic** fonts the job starts to get more difficult. One either seems to never need one of these fonts or one needs lots. So where do we start?

Firstly with a consideration of the possible uses for such a font. They are grouped together because they all seek to represent something that is handwritten, and it is in that way that they can be used. If a magazine uses a standard text font most of the time, the odd letter to the editor in a script font can be effective. Script fonts are also normally used in formal invitations. They can also be used instead of italic fonts in quotations, such as extracts from poems. A few also make interesting display fonts.

It might be appropriate, here, to consider the differences between the three groups, since I have collected them together. Script fonts have a very constant x-height and a very regular shape, whereas Handwriting fonts have variable x-heights and shapes. The one looks as if it has been printed whereas the other could have been handwritten except that any one character is the same wherever it appears in the text. Calligraphic fonts, briefly, differ from the other two in that they appear to have been written with a broad nib rather than with a narrow one.

When I am looking for a script font to use as a titling font, my first choice is Mondine. However, if a more medieval feel is required, StLeonards would be my choice.

For advertising, Brushscript, when used at large point size, can be effective. Latina is used extensively and effectively in food advertising.

For formal invitations, Commerce, Flourish or SaffronToo would all be suitable. Imitation hand-writing is more personal. You could, of course, get EFF to design a font to match your own but, failing that, find one that is not too different from yours if you do not wish to conceal how unreadable it is. I usually keep Helmsley close to hand, even though it is nothing like mine, and I also use Jessica and Riverside from time to time.

Mondine	StLeonards
Brushscript	Latina
Commerce	Flourish
SaffronToo	Helmsley
Jessica	Riverside

Glyphic Fonts

Glyphic fonts used to be considered a sub–set of Sans Serifs, but have lately been promoted to being a group on their own in most typography books.

Maiandra	Tiplo.Book
Lucida.Casual	
Abbey.Old.Style	

They generally have a small swelling at each stroke end, or a small, triangular serif.

They work well anywhere that you want to use a casual sans serif, so would compete with, say, Comic.Sans. My favourites are Lucida.Casual and Maiandra. Glyphic fonts also compete in the casual serif area, where a font such as Tiplo.Book is useful.

The display environment can also be a happy use of a font such as Abbey.Old.Style, where something a bit different from a standard serif titling font is required.

Blackletter and Uncial Fonts

Have you got used to the name Blackletter for the fonts that we used to call Gothic? Well, not many of us get to create imitations of medieval, handwritten documents, so perhaps you won't feel the need for any of these. However, they are still considered correct for wedding invitations so, just in case, we'll include a selection. Blackletter and Uncial fonts are also used for display purposes where appropriate, and here the requirements can be very varied.

Old English	Wedding
Rejoice	Kells
Fette.Fractur	
Kanzlei	Finery

For invitation purposes the obvious choice is Wedding.Text, but Old English is sometimes used because it is slightly more readable for people not used to a Gothic script.

For display use, the style changes significantly with the period. Rejoice and Kells take us back to the first millennium, whereas Finery recalls the Tudor period. Kanzlei takes us to sixteenth century Germany, and Fette Fractur brings us nearly up to date in that country.

Designer Fonts

Looking for a definition of a Designer Font, I came across one suggestion: a font that looks too exclusive to be classified in any other way. Yes, I know what the writer was getting at, and it sounds better than "well they have a

Architect Designer

ENTITY

certain something about them". Having said that, they get used in the usual ways. Some are good for informal text and some are best used for display.

The informal text ones are best represented by Architect, sometimes called Tekton, and Designer.

The display style is best represented by Entity. This is not a group in which there are many bold or poster fonts.

Display Fonts

This brings us to the last and largest of the main groups of fonts. Here we are faced with a bewildering range of fonts that no one, as far as I know, has ever managed to divide into neat sub-groups.

So, the task has to be faced in the usual way; how are they used and which ones do I find work well in such a variety of situations that it is worth keeping these within easy reach. The use is easy, their name says it all: posters, adverts, book jackets, title pages, chapter headings, and occasionally, very occasionally, the odd line of text.

So this is a list of what I would recommend for general use. It also needs saying that I have omitted all fonts that depend on such a way-out form that they are difficult to read. The selection of fonts for their artistic merit when they are nearly unreadable is a minefield of personal opinions which I do not wish to bring into the selection of a basic set of fonts whose main task is to communicate words not abstract ideas.

In no particular order of merit, but just as they occur to me, Artistic, Baldrick, Columbus, Domenic (Letraset Dolmen), Boutique, Eglantine, Eldorado, Marine, Letraset Revue, Spring...

And that's where we'll stop this time.

ARTISTIC Baldrick

Boutique Columbus

Revue Eglantine

Eldorado Marine

Domenic Spring

Fonts mentioned so far

This is a list of the fonts recommended in each group, together with the source information.

Serif Fonts

Adrian	EFF
Honest	EFF
Bembo	Microsoft Office
Centaur	Lotus Office 97
Bodoni	EFF
Cataneo.Light	Galaxy Home/Office CD
Millennium	Serif Page Plus 6 CD
University	Galaxy Home/Office CD
Souvenir	Galaxy Home/Office CD
ITC Tiffany	EFF
Trinity	with RISC OS

Sans Serif Fonts

Benguiat.Gothic	EFF
Coliseo	Five Star CD
Comic.Sans	Microsoft Office
Homerton	with RISC OS
Optima	Galaxy Home/Office CD
Tempus.Sans	Microsoft Windows 98

Script, Handwriting and Calligraphic Fonts

Brushscript	Galaxy Home/Office CD
Commerce	Galaxy Home/Office CD
Flourish	iSV
SaffronToo	EFF Public Domain CD
Helmsley	IMSI clip-art CD
Jessica	EFF Public Domain CD
Latina	PC Pro Cover Disc 12/00
Mondine	iSV (Jakaster)
Riverside	EFF Public Domain CD
StLeonards	mine

Glyphic Fonts

Abbey.Old.Style	EFF Public Domain CD
Lucida.Casual	Microsoft Office 97
Maiandra	Microsoft Office 2000
Tiplo.Book	Professional Draw

Blackletter and Uncial Fonts

Fette.Fractur	PC Plus cover CD 6/01
Finery	iSV
Kanzlei	mine
Kells	Tony Nash CD
Rejoice	iSV
Wedding	EFF
OldEnglish	EFF

Designer Fonts

Architect	Zenta CD
Designer	iSV
Entity	iSV

Display Fonts

Artistic	EFF Public Domain CD
Baldrick	EFF Public Domain CD
Boutique	Serif Page Plus 6 CD
Columbus	EFF Public Domain CD
Domenic	Expert 2000 CD
Eglantine	Acorn User CD no 9
Eldorado	Galaxy Home/Office CD
Marine	mine
Revue	EFF
Spring	mine

Some fonts are alternatives, not independent suggestions. See text for details.

To obtain any labelled "mine," send a floppy disc and s.a.e. to: Mr T G Pearce, 28 Marlock Close, Fiskerton, Southwell, Notts NG25 0UB

Terry Pearce





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Trinity is the name of a font family supplied as standard with RISC OS. It is named after a college of which University:

(a) Oxford
(b) Cambridge
(c) Durham

Get your answer in now and get your chance to win one of these great prizes.

Dr Wimp in practice

This time we are going to concentrate on getting a window with some icons displayed on the screen and manipulate them a little.

We'll be starting from the mini-application !MyApp2 which we produced last time (in seconds) using !Fabricate. A copy is on the Acorn User Web site — in the folder StartAppl — for the really lazy.

Designing windows/icons

As it happens, our first step is not about Dr Wimp. But it is a process you need to go through for nearly every Wimp application: namely, the use of a window template editor to design the window(s) that you want to use in your application.

Because it is an essential part of the Wimp-programming process, a very brief introduction to using !TemplEd — the window template editor included in the Utils folder of the Dr Wimp package — is given in the separate panel.

For the rest of this main article it will be assumed that you have designed the window in Figure I — called Main — with eight icons numbered as shown, and saved it somewhere convenient in a file called Templates. Just in case, a copy of the completed template file — also called Templates — is on the Acorn User Web site.

Expanding our application

So, start with a copy of the !MyApp2 application produced last time. We did not look at it in any detail then and it will be helpful to do so briefly now. In particular, it will be useful to compare its !RunImage file with that in the skeleton !RunImage in the !MyApp application that comes with the package.

We'll call this latter the 'seminal !RunImage' i.e. the one from which all Dr Wimp applications derive. This comparison will show us the changes/additions made to the seminal !RunImage in order to achieve what happens with !MyApp2.

If you are new to Wimp programming, there may well be other things in the !MyApp2 directory that are a mystery to you, but don't worry about them at the moment. In fact, one of the main purposes of Dr Wimp is to allow you to make applications without worrying about some of these details — but we will have a look at them in a later article.

Comparing !RunImage files

O.K. so load the !RunImage file from your copy of !MyApp2 into your favourite Basic editor and, if you use line numbers, start by renumbering the listing — from 10, with increments of 10. These articles will use line numbers because it is much easier to make reference to specific parts of the listing.

Now load the seminal !RunImage into a second editor window to effect the comparison. The first differences are routine and occur in the very early lines: a change in the LIBRARY call file-path, a change of application name and a different date in the new application's version number.

It is when we get to DEF PROCuser_initialise (extracted in Figure II) that several more substantial changes are seen and we get our first look at calling some Wimp functions. This WDEF PROC is used to carry out a whole range of initial tasks which, in any program, are best got out of the way first. Typical things would be creating/loading windows/icons, setting up arrays, creating initial menus etc. — by and large, actions that are going to require 'permanent' memory space during the program run. It's best to do these at the start.

You'll see that this DEF PROC has, as its very first action line, a call to FNwimp_loadwindow. This wimp-function takes a window from a template file and loads its definition into your application — returning the window handle (see last time) which, in this case, has been assigned to the variable info%. Thus, this line loads the Info window (which, as we saw last time, is attached to the first item of the iconbar menu).

The parameters of FNwimp_loadwindow tell Dr Wimp exactly where to find the window template file and are pretty easy to follow: the first parameter names the template file path and the second gives the name of the specific window within it. Ignore the third parameter (0) for now. Loading a window does not display it — that comes later.

The Info window contains several icons and the next five lines all make similar calls to the Wimp function PROCwimp_puticontext(). This does what it says: it puts text into an icon. Its first parameter is the handle of the window involved, the second parameter is the icon handle (number) in that window and the third parameter is the text you want to see.

In Lines 180-220 the calls are to five different icon numbers in the Info window — whose handle is info% — and each icon has different text put into it. It's as simple as that.

It is probably obvious but a window (with its icons) needs to have been loaded before you can make use of its handle. But also note that, having loaded a window you can change the text in its icons — and many other features — at any time. You do not have to wait until the window is displayed. If it is displayed when you make asuch a change the display will be updated immediately.

Stepping on, the next action — at Line 250 — is all that is needed to put an icon on the iconbar. Invariably, such an icon carries a sprite similar to that used to show the application in the Filer window. The Wimp function FNwimp_iconbar() is called, with its first parameter giving the name of the sprite to use, the second (a null-string here) giving any text required to show beneath the icon, the third specifying the maximum length that this text can be (in case you want to change it during the program run) and the fourth indicating whether the icon will appear on the right or the left of the iconbar (here, on the right).

Because an application can only have one icon on the iconbar there is no need for an icon handle in this special case. All we need is the handle for the iconbar itself (which is a special type of window). The iconbar handle is returned from the wimp-function and here is assigned to iconbar%.

Line 280 then creates the simple two-item iconbar menu and the returned menu handle is assigned here to iconbarmenu%. Dr Wimp provides several ways to create menus and this one is the simplest. We will look at them in more detail later. Note that, just like loading a window definition, creating a menu does not

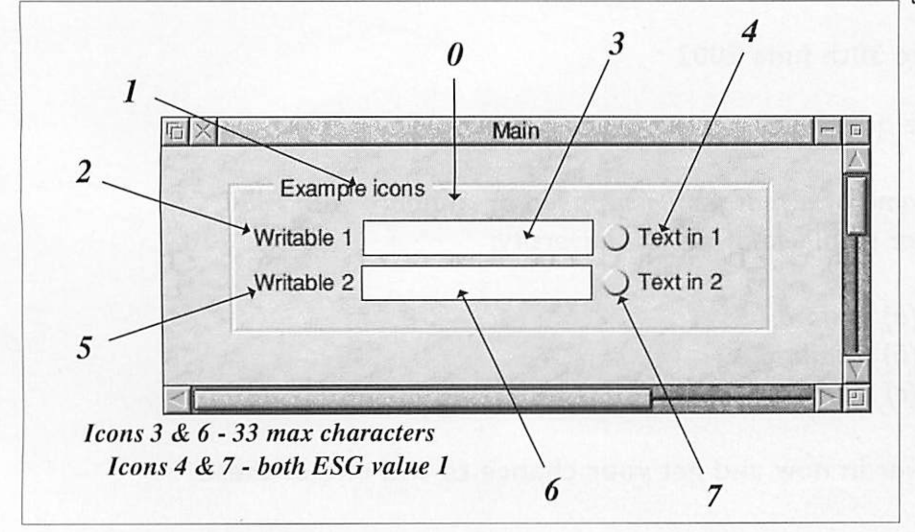


Figure I: The window called 'Main' showing icon numbers and other design details

```
150 DEF PROCuser_initialise
160 REM** Load standard Info window and fill it with custom
        text. **
170 info%=FNwimp_loadwindow("<MyApp2$Dir>.StdTmpl","stdinfo",0)
180 PROCwimp_puticontext(info%,0,"MyApp2")
190 PROCwimp_puticontext(info%,1,"An application using Dr Wimp")
200 PROCwimp_puticontext(info%,2,"© Ray Favre 2000")
210 PROCwimp_puticontext(info%,4,ver$)
220 PROCwimp_puticontext(info%,11,"3.62")
230 REM**
240 REM** Create iconbar icon, as defined. **
250 iconbar%=FNwimp_iconbar("!"+appname$,"",1,1)
260 REM**
270 REM** Create standard 2-item iconbar menu. **
280 iconbarmenu%=FNwimp_createmenu("MyApp2/Info/Quit",0)
290 REM**
300 REM** Attach info window to 'Info' item on iconbar menu. **
310 PROCwimp_attachsubmenu(iconbarmenu%,1,info%)
320 REM**
330 ENDPROC
```

Figure II: The contents of 'DEF PROCuser_initialise' from the !RunImage of !MyApp2

display it — it simply defines it and stores that definition at a location that it returns to us.

Finally in PROCuser_initialise, Line 310 'attaches' the info% window as a sub-menu to the first item of the iconbar menu — using FNwimp_attachsubmenu(). The first parameter is the handle of the menu to which something is going to be attached, the second is the menu item to which the attachment is going to be made (1 being the top item) and the third parameter is the handle of the menu (or window) which will appear as the attached sub-menu. The wimp allows you to treat windows exactly like menus for this purpose. If, as is more frquently the case, another menu was going to be attached as a sub-menu then it would need to be created first — similar to the creation of Wiconbarmenu% above.

Are you starting to get the flavour of Dr Wimp? All the complicated stuff is carried out behind-the-scenes by providing you with a large arsenal of wimp-functions and most of them are as simple to use as the examples just seen.

Moving on

Let's leave the comparison now and start adding something to !MyApp2. For starters, we had better copy !MyApp2 with the name !MyApp3 — in case you want to refer back.

You'll see that !MyApp3 has a different filer icon when you do this, and there are other minor name changes from "MyApp2" to "MyApp3" which ought to be made — in the !Boot, !Run, !RunImage and sprite files, for instance. To save you time, the Acorn User Web site contains a fully modified copy for your convenience — in the folder StartApp — and we will now be using (a copy of) that version.

O.K. Now open up !MyApp3's application folder and copy the earlier-mentioned window template file called Templates into it i.e. the template file for the window in Figure I.

You'll notice that there will now be two window templates files in !MyApp3's folder — the other one being StdTmpl, originally produced by !Fabricate and containing standard Info and Save windows. As these two windows are nearly always needed, the default application produced by !Fabricate always includes them, although we have only used the Info window so far.

Now add the line:

```
Xmain%=FNwimp_loadwindow("<MyApp3$Dir>.Templates"
,"Main",0)
```

immediately after Line 170. You have now taken action to load the definition of the window in Figure I.

You can see that having more than one window template file is no problem, we simply ensure that the first parameter carries whichever file path we want. But note also that the window name in the second parameter is case-sensitive and must line up with that used in the template file.

Now let's put some initial text into the writable icons and set up the radio icons to a sensible initial setting.

Add the following to DEF PROCuser_initialise (anywhere after loading

Using a window template editor

Using a window template editor is something you need to do for nearly every Wimp application and therefore a brief description of how to use them is appropriate to this series.

We are going to design a window for our demonstration program using !TemplEd (freeware by Dick Alstein) — a popular window template editor which you will find in Dr Wimp's Utils folder — but you can use any such editor and they all work in very similar ways.

So, double-click on !TemplEd to load it and then press Select over its iconbar icon. Figure A shows you what you'll see. The left-hand window (Templates) will be at the top left of your screen and the other (Icon info) at the top right. These are very usually convenient locations for them. Note that the Icon info is not at full size. Press the toggle icon to see the rest of it and then return it to the previous state for now.

Figure A: Initial TemplEd windows

Now click Menu over the left-hand window to get TemplEd's main menu. This will only have its first item WCreate enabled at the moment, with an arrow-head indicating a sub-menu is attached to it. Move the pointer across the arrow and a writable icon in a very small window will appear. The window has the title Name:

Type "Main" in here and then hit Return. Two things happen: a default empty window with the title Main will appear and the Templates window will acquire a small icon representing this new window — and it will also be called Main. Figure B shows what you will see on the screen. The small icon in the Templates window will have a yellow centre, denoting that its window is open.

Figure B: Creating a new window

You can use the Create option as many times as you need (now or later) to initiate other windows in the same template file. Apart from their names, each one will be identical at the start and represented by its own icon in the Templates window, carrying the name that you type in as above — which will also appear in the title of the window.

It is a good idea at this early stage to save your templates file to a convenient location — via TemplEd's main menu. This will ensure that future saves will have the correct full file path ready for you in the Save window.

Now click Menu over the WMain window and select Create icon to get !TempEd's WIcon palette window — as in Figure C. It shows a selection of common icons which you can drag to your window and then modify to your specific needs.

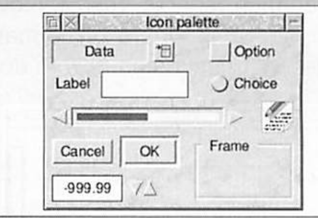


Figure C: The Icon Palette

For our immediate purposes, drag the Frame icon and its

the window Main):

```
PROCwimp_puticontext(main%,3,"Writable 1")
PROCwimp_puticontext(main%,6,"Writable 2")
PROCwimp_iconselect(main%,4,1)
PROCwimp_iconselect(main%,7,0):REM** For
demonstration. Unnecessary here as both radio
icons have same ESG. **
```

The Wimp function PROCwimp_iconselect (window%,icon%,state%) is typical of several Wimp functions that select/deselect a feature. The first and second parameters are self-explanatory by now and the third parameter simply sets (1) or unsets (0) the feature concerned. Here, radio icon 4 is selected and radio icon 7 is de-selected. Similar Wimp functions exist to enable/disable ('grey out') an icon and also for menu items.

We've made some changes to our newly-loaded window main%$ but we haven't seen it yet. So now move down to DEF PROCuser_mouseclick().

Remember, from the first article, that whenever the user clicks Select over a window (or iconbar icon) of your application this User function will be called automatically — and, moreover, the parameters will automatically carry the 'live' values involved.

What we are going to do is cause main% to be opened when the user presses Select over the iconbar icon. So make DEF PROCuser_mouseclick() look like this:

```
DEF
PROCuser_mouseclick(window%,icon%,button%,workx%,
worky%)
CASE window% OF
 WHEN iconbar%
 PROCwimp_openwindow(main%,1,-1)
ENDCASE
ENDPROC
```

This is our first proper foray into a User function with parameters. Do you see what happens? When the user clicks with the mouse the parameter values will automatically be set to the 'live' situation — and the CASE construct says "If the user makes a mouse-click over the iconbar icon, open the window called main%". We could have equally well have used an IF statement instead of a CASE statement

Save the !RunImage, run !MyApp3 and try it out. O.K? You'll see the window with the new text in the writable icons and the top radio icon selected.

PROCwimp_openwindow() is pretty straightforward. You put the required window handle as the first parameter and the following two parameters determine its position on the screen and its 'stack' position i.e. 'on top' of other windows, at 'the bottom', where it was last time, etc.

Finally, to drive home a point, Put REMs in front of the above CASE, WHEN and ENDCASE lines, save it and run the application again. Now bring up the iconbar menu, move across the first item to show the info% window — and then click over any of the text icon there. You'll find that our main% window will open — simply because we have not used the parameters of PROCuser_mouseclick() to narrow down the circumstances when main% is required to open.

Now restore things to what they were and renumber and resave !MyApp3. It should now look like the copy of !MyApp3 contained in the EndApp folder on the Acorn User Web site. Don't mix up the StartApp and EndApp versions!

Next time

We'll start from here next time. with some further manipulation of the icons and handling the keyboard with the writable icons.

Contacts

Download the Dr Wimp package from my Web site at: **www.argonet.co.uk/users/rayfavre/**
E-mail: **rayfavre@argonet.co.uk**

If you do not have internet access a copy of the latest Dr Wimp package can always be obtained by sending a formatted (1.6Mb) floppy disc and return postage stamps to:

Ray Favre, 26 West Drayton Park Avenue, West Drayton, Middlesex, UB7 7QA, U.K.

label, the writable icon and its label and the Choice icon. You should then see something like Figure D. Starting from this you can then rename, resize, move, copy, etc. to get the design shown in Figure I. The manual with !TemplEd gives detailed instructions on how to do this but we will go through a few items here.

Figure D: After dragging a few icons from the icon palette to the new window

Firstly, double-clicking on any icon will bring up the Icon edit window. This is the window for setting all the icon's characteristics except size and position. In particular, you can alter the initial text shown in an icon. For instance we will want to change "Frame" to "Example icons".

All the icons we have dragged are the wrong size for our needs and they can be changed with a mixture of Adjust+dragging and the use of the menu options from clicking Menu over the window being edited. The same menu gives options for aligning the icons and for making them the same size (in vertical and/or horizontal directions). If any icon showing text is not wide enough to show all the text you will see the text curtailed and can then increase the width as necessary. You soon get the hang of it with a little practice.

The writable icon also needs to have the maximum allowable number of characters set — and here we have chosen 33 — which allows 32 visible characters plus an invisible string terminator.

Having got the window looking something like Figure E, you can now select the top three icons and copy them downwards and modify the text correspondingly — and then place the frame around them to arrive at Figure I in the main article. The two Radio icons are then given the same ESG value: here 1, but any number in the range 1-31 would do.

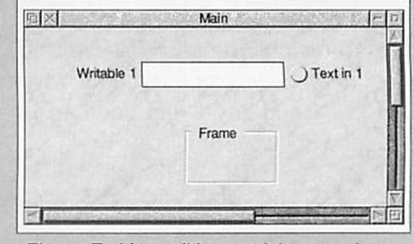


Figure E: After editing, resizing, moving and aligning some of the icons

Numbering the icons logically can also be a great help and this can be done from the menu. You need to make the numbering as shown in Figure I. In doing this you may see that if two icons overlap the icon with the higher number is displayed on top. It is for this reason that it always makes sense to number any frame icons as the lowest.

Finally, the window itself can similarly be edited, including its full and visible sizes and what 'furniture' is shown (i.e. title bar/ scroll bars and so on).

As we are not going into more detail here, have a look at the completed Templates file in the !MyApp2 application (on the Acorn User Web site) by loading it into your template editor. It would probably be worth taking a copy of it so you can 'play' with it freely.

Whose desktop is it this month?

When I was asked me to be the Guest of Honour for this month I confessed to not having followed this series too closely. Don't *worry they said, having explained the* rationale behind it, 'just do it in the style of Lloyd Grossman'.

Over the years I have done many things for Acorn User but even I must draw the line at that. So, in not quite the Grossman style here goes. A little about the computer and its peripherals first of all. The main box is a Risc PC with StrongARM, 50Mb of memory and a CD ROM drive. Atop this sit an Ilyama 17" monitor with a US Robotics 56k external modem alongside and an Iomega 100Mb Zip drive. The latter is mainly used to transfer files to the other Acorn in the house, an A7000+.

The Risc PC is getting on a bit and the A7000+ is positively geriatric but while several generations of PCs have gone from State of the Art to State of the Ark in six month leaps they both still out perform most PCs.

So onto the desktop. Well, I will try not to insult you too much by explanation of the more ubiquitous pieces of software like Impression Pro (on which this article is written) and Ovation Pro (excellent but old habits die hard). Copies of Schema 2, Eureka and Pipedream 4 on the computer indicate that the user recognises that we may have an abundance of software but that it is often horses for courses in the use of it.

The presence of software for converting .WMF and .CGM files stems from the ownership of the excellent Task Force Clip Art Collection. This comes largely from a time spent writing, including many aticles, reviews and a column for Acorn User at one point in the life of the desktop owner. This he (oops it a man!) still does although not as often these days.

The modem is there along with a copy of the ANT Internet Suite for e-mail and occasional corresponding with the Acorn user groups although here the user tends more to the PC these days as the Acorn world is sadly deficient in this area. However, the very excellent Zap at least recognises the value of 'top posting' over the appalling 'bottom posting' as delivered by most PC products.

On the subject of the Internet and e-mail the more sharp eyed among you will see the small red post box with a 2 on it. This is Junkmail 2 from Mike Williams. This program, once Shareware and now Freeware deals with the curse of junk e-mail by resolving the e-mail to the ISP and generating a complaint to the abuse box of the ISP. The theory being that the ISP will throw the abuser off its system. An excellent program that I recommened to anyone so afflicted — it really works and unless you complain you will still get bombarded. Remember: Never, ever respond to the abuser — you are just telling them you really exist.

In the background of the desktop is a screen saver showing fish gently swimming across the screen. I cannot remember where it came from but I like it.

So what else have we — on the task bar is a joystick interface control icon from STD but the only evidence of any games is a copy of Chess II from the Pilling? Well, you don't need a joystick for that but on the hardisc we have copies of Inferno and Overload from the Paradise budget range. As the owner is not a games player — apart from Chess and occasionally Patience — there must be children in the house. You're right there — 4 to be exact.

On the subject of patience there is a copy of The Patience Addict from Creative Curriculum Software circa 1995. This is probably no longer available like much of the other Acorn software on the hard disc but it illustrates a theme dear to the owner's heart — how much excellent software is there out there which has simply been allowed to die like this? CCS and many others produced some excellent titles — where are they now?

So, the owner of the desktop is not afraid to complain, likes Freeware and budget software. This begins to sound like a Northerner — probably a Yorkshireman and therefore the salt of the earth.

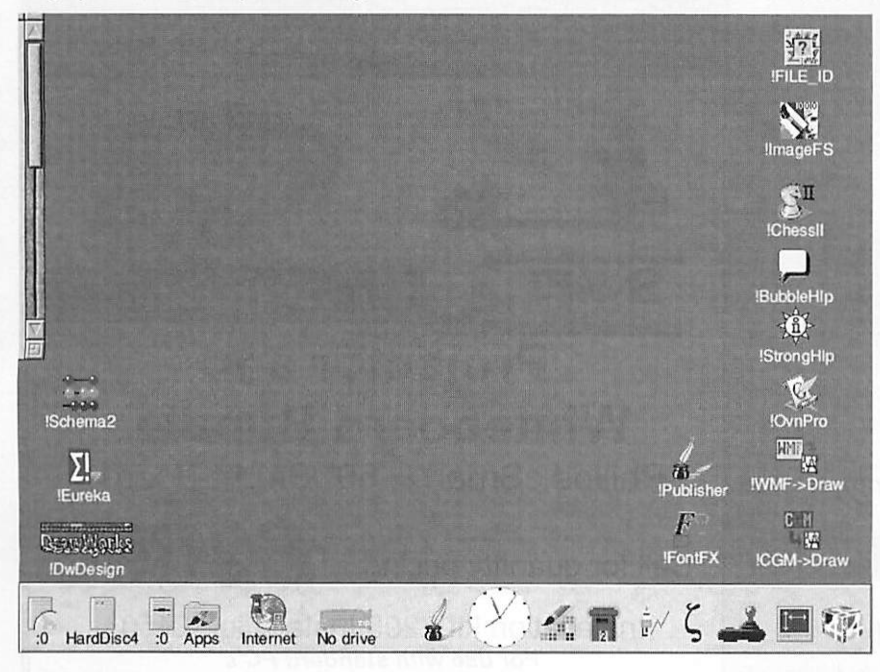
What else have we got? I promised not to insult you with the obvious but a certain pride of place must go to Draw. I know it's on every Acorn but where would we be without it? This small yet powerful program which spawned Vector, FontFX and DrawWorks (all on the hard disc) and a host of other add ons will really be a great part of the legacy of the Arc when and if it finally shuffles off this mortal coil.

ImageFS 2 from Alternative Publishing deals with the graphic file conversions that WMF to Draw and CGM to Draw cannot handle and FileID deals with the identification of the files nothing else can recognise and at least gives you a starting point.

The fact that there is nothing very modern on the hard disc is a testament to the longevity of the software as well as the hardware. On the Acorn we got the best software in the early years and while I recognise that there is still good stuff coming along and available I cannot help but be impressed by that software.

As the children have grown older a lot of the software on the hard disc and elsewhere which they used as toddlers has fallen into a state where it is no longer used. !TinyArt, Magic Maths, TextEase, The Sherston Naughty Stories Vol 1, Talking Pictures, Mission Control Crystal Rain Forest 2, Badger Trails etc have all played a major part in the education and enjoyment of my chldren over the years. I could get quite misty eyed but the Acorn was born in Education and that was/is its greatest strength.

Let's hope it can find another niche.



Commonwealth challenge

With the Commonwealth Insitute more than a little keen to promote the Commonwealth to schools to coincide with the Manchester Games it can be time consuming to sift through the resources on offer. So here are some we've found for you to get you started ...

www.abcollectables.co.uk

A variety of resources (free and otherwise) from an introduction to the commonwealth and the 17 sports to be found at the Games to copies of flags and a booklet about their meanings.

www.commonwealthgames.com

Associated with the 2002 Games itself is the Spirit of Friendship which is an education program run by the Commonwealth Institute and the Youth Sports Trust. Although the games take place between the 25 July and 4 August, while the Spirit of Friendship adds a programme of arts, cultural, educational and sporting events linking the 54 countries of the Commonwealth.

www.commonlink.org.uk/education

An internet project on gloabl citizenship open to all school in the Commonwealth. Pupils can join online forums on global issues, take part in polls, quizzes and send e-cards while finding out about the people and places of the Commonwealth. Meanwhile, teachers can share research and ideas as well as developing links with other schools.

You could take this linking further exchanging photographs and emails which fits nicely with Year 3's ICT email topic. For help with setting this up and to see examples of school links you can contact the World Links team at the British Council - www.wotw.org.uk/northsouth or contact Link Community Development, who runs a programme which links UK schools with those in rural and township areas of South Africa, Ghana and Uganda - www.lcd.org.uk

www.CommonwealthDay.com

Celebrating diversity was the theme for the Commonwealth Day Observance in Golden Jubilee year in March. Designed for teachers the Royal Commonwealth Society has produced a pack filled with ideas on how to celebtrate the day which can be used as a research tool. Did you know that a recent survey shoed that two-thirds of all school children in the UK had a family member living in, or from a Commonwealth country?

www.youngcommonwealth.org

Good starting site for pupils independent research full of information on what the Commonwealth is, which countries are in the Commonwealth, what does the Commonwealth do. There are also some excellent Commonwealth quizzes which make a good assessment task to discover what children know about the Commonwealth before and after you start working on it.

www.globaleye.org.uk

A truly excellent site produced by Worldaware for the Department for International Development (DFID) which complements the Global Eye magazines which features articles on world development. You can enter through the Primary or Secondary Newsrooms. Accessible and colourful, the primary newsroom this spring focusses on food, North East India with projects, competitions and fun as well as actions your school can take part in.

The Secondary Newsroom has a more sophisticated look but in the same categories and their Spring issue focusses on St Lucia. Past issues are available in the archive and to accompany the web pages for students, the Teachers' Notes provide suggestions for supplementary resources and websites, as well as information about how it can fit into the school curriculum.

www.thecommonwealth.org

Less accessible site for children but full of information for teachers with good links and information on resrouces. It's here that you'll find the Secretary General's Report and information on the activities the Commonwealth are supporting/involved with such as gender mainstreaming and economic empowerment.

Wealth in Common

The Wealth we have in Common is a resource from the Commonwealth Institute. Priced at £18.00 (inc p&p) it's aimed at key stages one and two this is a teachers' pack with classroom activities and 10 A4 resource cards such as Music Masala exploring identity and celebrating diversity and Waste not, want not which investigates the allocation of resources, in addition there are case studies which illustrate good practice as well as background information and activities on global issues. For more information ring +44(0)20 7603 4535.

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In brief

Sam I can

As the exam season looms, GCSE students can now access a new Web site to help with the planned (and last minute) revision. All you have to do is access www.samlearning.com which is a joint venture between Knowsley Local Education Authority and SAM Learning.

The catch? Well you have to be in the Knowsley area! As part of the eight-week run-up to this season's GCSEs SAM Learning will be an integral part of the Knowsley LEA Plus One Challenge - an initiative forming part of a comprehensive Education Development Plan which gives students access to revision tips, quizzes provided by text message to mobile phones and hand-held browsers.

The SAM courses on offer vary from Maths, English and Science to languages and provide timed questions similar to those faced in the real thing. But basic skills also play a part with work using a compass, protractor, calculator, drawing graphs, writing structured English essays and succinct scientific explanations. Instant feedback allows students to identify areas that need extra work and so target revision.

SAM Learning's David Jaffa added: "To encourage a commitment to learning we're donating £5,000 to provide a £25 rewards for the 200 most active users of SAM Learning this summer term." For more information ring +44 (0)207 379 8234.

Irish eyes are softly focussed

Softease have won a contract to supply up to £850,000 work of software to Northern Ireland. This will see every primary school in the province equipped with Textease 2000. This makes it the largest ever order received for Textease.

Football crazy

SUNDERLAND Football Club has joined forces with Sunderland Education Action Zone to produce Go On and Learn. Part of the ever-growing Espresso service this resource uses football as a stimulus to motive pupils with literacy and numeracy skills at primary school.

Filmed at Sunderland FC's Stadium of Light, the resource contains over 35 minutes of full-screen, high quality video with interviews with the team manager, coach and a local sports reporter as well as footage of the match against Charlton.

Go On and Learn (GOAL) is divided into three sections: Matchday, Stadium and Football Community. Within each of these categories are five video sequences accompanied by literacy and numeracy-based activities. These include letter writing, creating diaries, newspaper reports, calculation in the ticket and souvenir shop and journey times for travelling fans.

Articles - ranging from newspapers and tables of results to plans of the stadium - are available for teachers to use in the classroom as they have been created in HTML so can be imported into word processors or desktop publishers. In addition there's an extensive photographic resource which is free to use.

Any LEA or EAZ can apply to have an Espresso resource created for their schools which will take the form of an add-on module for subscribers to the broadband service or it can be delivered on CD-ROM. To find out more access www.espresso.co.uk or phone +44(0)20 8237 1200.

Asking questions

You're likely to come across branching databases in Maths and Science where they can test your logic circuits or understanding of technical language. However, branching databases are simple to use and fun to create and are best explained by comparing one to the children's game Guess Who.

Before we go any further I must introduce a quick apology, I was all set to review the RISC OS version but a little problem with our CD-ROM drive meant that I had to use the PC version instead, which is why the screenshots are from the PC. Since this is Softease we're discussing all the versions are the same — and I did actually write the review ona Risc PC so I hope I am forgiven.

Branching databases allow children to sort information or classify animals, foods and so on by providing yes and no questions which children can create themselves fulfilling ICT needs for Year 2 upwards. So just how does Branch — the latest member of the textEase family from Softease — shape up?

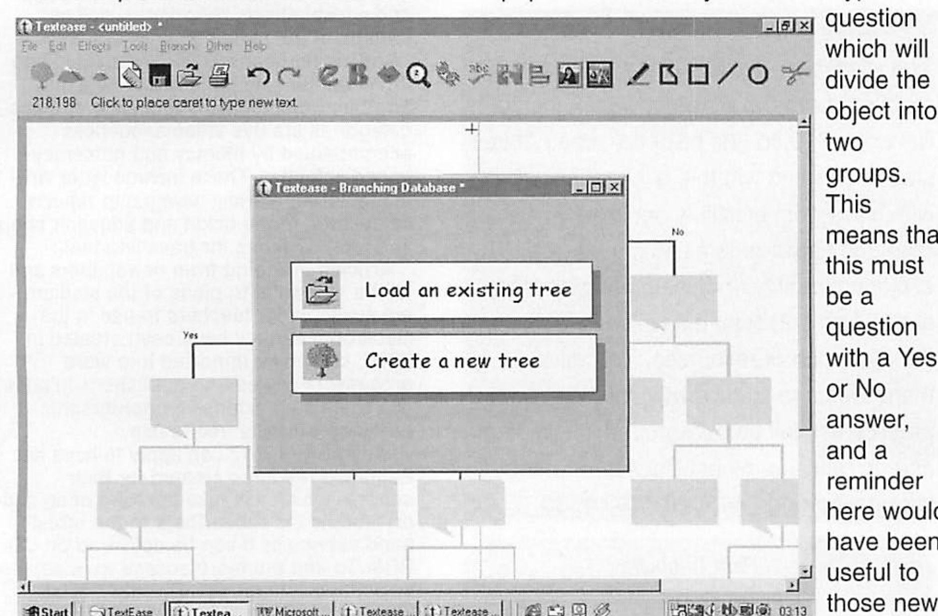
The CD-ROM comes without a printed manual but once you've input the serial number and key number provided on the licence agreement, the usual Textease install screen pops up and the program loads itself on to your hard disk. The initial screen is colourful and succinct offering you two choices to wither load an existing tree or create a new tree. Feeling adventurous I opted for the latter.

A pleasant woman's voice tells you exactly what you need to do - put objects you need for the branching database into the box. This can take the form of words or pictures. Two small icons to the side of the box give you access to a picture bank and word bank. Click on one and access your disk drives for resources or use the ones provided with the program.

I liked the fact that you collect all your images and words together in a sorting box as it allows you to see at a glance what you are working with. Images in particular can be too small to see the detail of, but you can drag these to a larger size in the same way as in TextEase to see the detail but they spring back to the optimum size for the program when you're finished. Deleting images is not obvious and here a manual or a card explaining the commands would have come in useful. However, there is a 18-page user guide on the CD-ROM which you can print off or access directly.

At this point the look and interface isn't typically TextEase and although I found it curious that if you're not paying attention (and I wasn't at just the wrong moment) you can end up putting the pictures into the word bank with no obvious way of undoing and replacing with words.

So you've got all your objects to be sorted into one box. Click OK and up pops a box where you have to type in a question which will divide the object into two groups. This means that this must be a question with a Yes or No answer, and a reminder here would have been useful to those new to branching databases.



Having entered my initial question I was told to drag the pictures into the Yes or No boxes. Again instructions are spoken and written. An excellent point is that you can add more pictures to the initial sorting box at this stage - just click on the bank icons and load in to either yes or no. You can do this at any time in the sorting process.

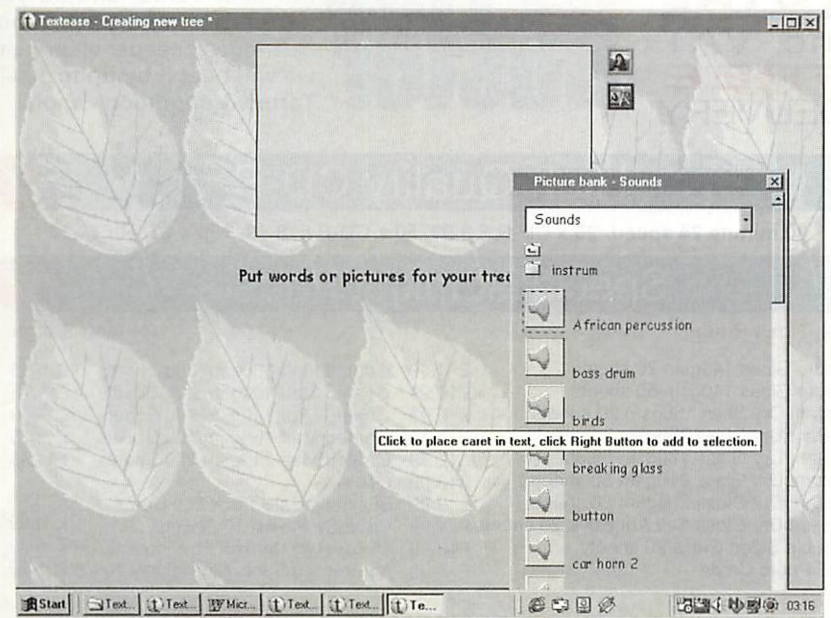
During this dragging process some of my younger testers found it too easy to turn and flip the images. As you only need to move, enlarge or reduce the size of images it would have been better if these additional facilities could have been turned off.

Once sorted on the first question click OK and the same process is repeated asking for Yes/No questions which will divide a smaller sub-set of the previous Yes/No objects.

You continue dividing your photos, clip-art, words and so on with questions that can only be answered yes or no until there is only one object in each box. Very straightforward and well supported by the interactivity of the program.

Your final click of the OK button throws you into a more standard-looking TextEase screen with the expected icons and interface. However on the usually blank page you can see your full branching database complete with images, pictures or words with the questions in speech bubbles.

At this point save your work, then you can start using the icons to tweak the look of your tree. You can move it around the screen but it you get in a mess just click on Tidy Tree in the Branch menu. An nice cheat is the Find option in the Edit menu (or press F4) where you can locate an elusive object



in a huge construction. You can also lock the tree to stop people messing up your design once you've decided on the style of speech bubble holding the questions or whether you want action sounds added in.

Happy with the look, you can play. This is done by clicking on the far left icon of the tree. Objects disappear and only the initial question is available with everything else greyed out. Questions are spoken in computer voice as per usual with TextEase products, though speech is optional and you can record your voice as a replacement. The correct path is highlighted as you go so you can see the route - especially useful with large Branches.

Answer the question yes or no and follow the branches until your offered the only logical match. If the questions don't quite work - which is often the case when you start using this type of software - just click and change it. If you rephrase a question you may need to swop the object from yes to no and this is easily done through the Branch menu.

You can add questions at any time and if a proposed match is not the one, up pops a box entitled What is your new object and you type in the name or drop a picture/sound of it in the box from your hard, floppy, CD-ROM or Zip disc.

The initial Q&A program then jumps into action allowing you to reclassify your new object. An excellent and flexible learning tool for children new to this form of question and answer database.

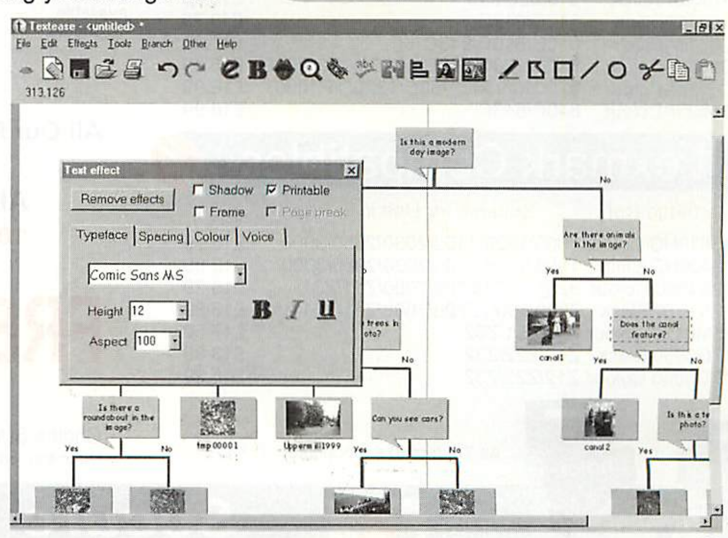
However, if you match the object you had in mind with the one suggested by the program this pops up accompanies by its name, which is whatever you had it saved as initially. I found it better to rename my objects before putting them into the initial sorting box so that their names convey meaning at this stage rather than just a random collection of alpha-numeric filenames.

There are other new icons on the usual iconbar, The large and small mountains allow you to zoom in (and out) in steps as much as you want. There is also a Zoom toggle button too which switches between small and larger images, the mountain icons allow for a more specific zoom.

However, the usual icons are there too: the paper and ruler icon lets you change the look whether its the paper orientation, or whether you want to alter the scale, A5 to A1 paper size, have a poster option, change the iconbar works, or opt for a full-screen and even coordinates. The Undo/Redo arrows, Embolden, Save, Load and Print icons are all obvious, although the latter has some interesting additions.

As well as choosing to print the whole document or only sheets with selected items, the advanced setting lets you set whether you want to print paste markers and specify overlap for a poster, or even opt for a pamphlet. In addition you can add crop marks, reduce to fit or specify pages you want printed and even if you only want them in black and white.

Click on the question bubbles and the E comes into use letting you change line style and thickness and colour, as well as arrows, fill colour, shadows and frames. All highlighted text can be spoken by clicking on the mouth in the same way as all other TextEase incarnations.



In addition there is a spelling window and tools to let you group/ungroup and add shapes or lines to your finished database. Some of these I felt were there because they usually are, not because they are really needed. However, access to the word and picture banks is useful as you can add interesting backdrops or build in annotations for those new to this type of program for instance. Then of course it does fully integrate with the rest of TextEase Studio and saved trees can be used on RISC OS, a PC or Mac.

But that is not all that is up the sleeves of Textease Branch. Via the Branch menu select Expert and you'll find yourself in a different-looking screen where questions are posed to identify the object.

Answer each question in turn and at the end the computer will offer a solution. If it's right it gets very cocky and sad if it's not correct asking you to add to the database. In essence, this is a Textease file saved with your branching database and pressing F5 allows you to customise this screen.

So what is the bottom line on Textease Branch? It is a flexible and highly editable program for creating binary trees. These never become unmanageable due to the zoom and new view options, but best of all is the well thought out Poster printing option. Quick and easy to use with only a few minor niggles.

Product details

Product:	Textease Branch
Ages:	7+
Price:	£(call)
Supplier:	Softease, Market Place, Ashbourne, Derbyshire DE6 1ES
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Email:	sales@softease.co.uk

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BJC3000/6000	Black	£ 4.49
BJC3000/6000	Each Individual Colour	£ 4.49

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51629A Black	600/660/690C/695C	£10.45
51649A Colour	600/610C/612C/660C/690C/695C	£14.99
51645A Black	710C/720C/820CXI/850CXI/870CXI	£ 9.95
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C6625AColour	840C/843C	£16.99

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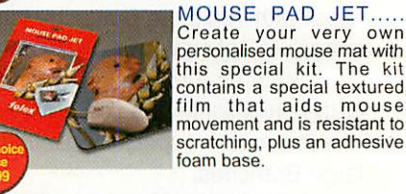
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• RISC OS 3 PRM's and other Acorn programming books. Free to pick up or 20 GBP. tel: Cheltenham (01242) 244227 - Chris. Also Acorn user mags issues around ?80-130? free to pick up only.

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• Kinetic RiscPC 233Mhz 17" Ilyama monitor 10Gb HD, 52xCDRom, internet ready (RComp Dial Up) and software VGC hardly used 18 months old, cost £1490.00, must sell, reasonable offer accepted. postage extra, email verseau@ukgateway.net or louis@raynal.freeserve.co.uk Tel 01706 812516

• I need a double/double side disc drive (maybe CUMANA for A BBC B with Acorn DFS. I also need a connection lead for or complete Micropulse external Rom box dolton.hussey@btopenworld.com

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• Following Items for sale / donation any reasonable offers considered: Magazines: Acorn user, issues 154-190, April 1995-January 1998. With cover disks. Plus assorted clan disks and a couple of archimedes world magazines and disks all disks supplied with disk box. Books: Archimedes Assembly Language, Mike Ginns, a dabhand guide - with example disk A Beginner's Guide to WIMP Programming, Martyn Fox, Sigma BBC BASIC Programming for you, Stephen Doyle, Hutchinson. Software: GCC for Acorn, Turbo driver for Canon BJ and BJC Printers, disk and cable, Acorn Desktop Publisher, disks and manuals. Keith Brady E-Mail : kbrady@iee.org Mobile : 07961 375793

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Keeping it RISC OS

I am an Electronic Engineer with a wife and three young girls We have a Risc PC (plus two others in various states of assembly), A3010 and several older Archimedes computers (I bought a job lot for a £1000) plus a BBC B now boxed up. I am attempting to keep us Windows-free as my wife supports the RISC OS cause as well but just wants to use it as a tool rather than be interested in maintaining or programming it. The A3010 and BBC B were brought by us, new. I subscribe to the major RISC OS magazines.

I disagree with those who think that our market is failing because of the longevity of its hardware or the introduction of Virtual Acorn. We brought the Risc PC when we wanted to use the new features of OvationPro and kept running out of memory on the A3010. I had 'authority' to buy the Pheobe and was all set to go to Acorn World with that intent but then settled on the job lot from a friend who decided that his house would go entirely Windows, this included the Risc PC, A400, and two A300s. So I think that software development is what creates the need for new hardware, although it is a 'chicken and egg' situation. I understand that the video editing platform from Eidos is ready to be further developed if only the Omega was released (a snippet from Archive).

What RISC OS must address is all the areas that can only be performed by Windows-based products, it will be very hard to persuade people that they need two computer platforms; RISC OS for its user friendliness and Windows for its functionality. Unless there are more 'killer' apps — Vantage is probably the only surviving one now — I cannot see how this can happen.

Keith Hampton
by e-mail

I am afraid some of your views would raise hackles among many of the suppliers and dealers in the RISC OS market. Though at least you have bought a new machine at some point along the way. It is all very well saying "we need to develop killer apps" but who is going to pay for that development?

However there are certain groups of users in the RISC OS market that do not help. Their attitudes are encapsulated by three views: (a) "I'll buy my consumables from PC World/Viking/Staples." Factually they never even bother to check whether it's more expensive than buying it from a RISC OS dealer, or even if (rarely) it is is the price difference worth the contribution they are meking to the people who actually support the machine they own.

Then (b) "Why upgrade my software? This version does everything I want." or, in a slightly different vein, "I was a beta-tester, you should give me every new version for free." Would £10 or £20 hurt so much? You expect the developers to continue to produce new software but don't expect to support them to do it.

And finally (c) "My A3000 does everything I want. Why should I buy a new machine?" I don't think I need to make any comment on that.

Therapeutic Risc PC

I am not a youngster, but I am a very keen RISC OS user and avid reader of the Acorn User, a few years ago had serious physical problems, what has this to to do with Acorn computers you may ask, well it was with the help of an Archimedes and now my Risc PC that I was able to regain the use of my fingers and the ability to concentrate.

So I read with interest your words to Mark Syder (April 2002) regards a Kinetic card upgrade. As I have an Acorn Risc StrongARM PC with RO3.7 and not the finance to purchase a new Kinetic machine, would I benefit from buying the upgrade card and RISC OS 4, like Mr Syder.

By the way I do like the the new style of the magazine. it is easier to read and understand.

Derek S. Kennedy
by e-mail

Upgrading

I have an Acorn A5000 linked to a Citizen Swift printer which I do all my business paperwork on. Unfortunately, after 10 years of use, the print head on the Citizen Swift has died completely and I now need a replacement. Do you know where I could get one? (Don't laugh!) I could get a new printer, but I'm a bit concerned about printer drivers that are compatible with the A5000.

Also, I still use Pipedream, with a special printer driver from Ian Copestake to do different sizes and colour of text, which suits me fine. I found some references to Ian Copestake on the Internet, but I couldn't find out if I could get another printer driver for Pipedream.

I know I should be upgrading to other printers or programs, but I like using what I have. I tried to use Fireworkz, but I couldn't get on with it. I do have a PC, but I abhor the idea of having to use Microsoft Works or its equivalent to do all my work on. It really is no patch on my old Acorn machine.

So can you give me some ideas? Is it possible to get hold of Ian Copestake any more, or anyone who may be able to produce a printer driver to use with Pipedream?

S Clinton
via e-mail

I can see it has been a while since you've been in contact with the market. Ian Copestake has been gone for several years now. However you can get upgrades to Pipedream and you'll find that it will support new printer drivers – I'm impressed the printer you have got lasted so long.

Your best bet is to contact your nearest dealer in the magazine and talk to them about what your best route is.

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letters@acornuser.com

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PENTAX Optio 330	£448	£462	£466
PENTAX Optio 440	£598	£612	£616
RICOH RDCi500	£448	£462	£466
RICOH Caplio RR1	£548	£556	£562
RICOH Caplio RR10	£278	£296	£306
RICOH Caplio RR120	£198	£212	£216
SONY DSC S85	£618	see website	see website
SONY DSC S75	£517	see website	see website
SONY DSC-F707	£867	see website	see website
SONY FD200	see website	see website	see website
SONY FD75	£348	see website	see website
SONY P31	£195	see website	see website
SONY P51	£241	see website	see website
SONY P71	£308	see website	see website

READERS AND ADAPTERS

FUJI ZIO USB Smartmedia reader/writer	£29
JENOPTIK USB Compact Flash reader	£24
JENOPTIK USB Smartmedia reader	£24
SANDISK Compact Flash USB reader	£27

SMART MEDIA

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FUJI 32MB	£16
FUJI 64MB	£30
FUJI 128MB	£54
SANDISK 16MB	£11
SANDISK 32MB	£17
SANDISK 64MB	£32
SANDISK 128MB	£56
TOSHIBA 64MB Smartmedia card	£33

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FUJI 32MB	£20
FUJI 64MB	£32
FUJI 128MB	£58
IBM 340MB microdrive	£168
IBM 1GB microdrive	£268
SANDISK 16MB	£15
SANDISK 32MB	£21
SANDISK 64MB	£34
SANDISK 128MB	£60
SANDISK 256MB	£120

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SANDISK 128MB	£57

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SANDISK 16MB	£24
SANDISK 32MB	£34
SANDISK 64MB	£56

MEMORY STICKS

SONY 16MB	£29
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SONY 64MB	£62
SONY 128MB	£98

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